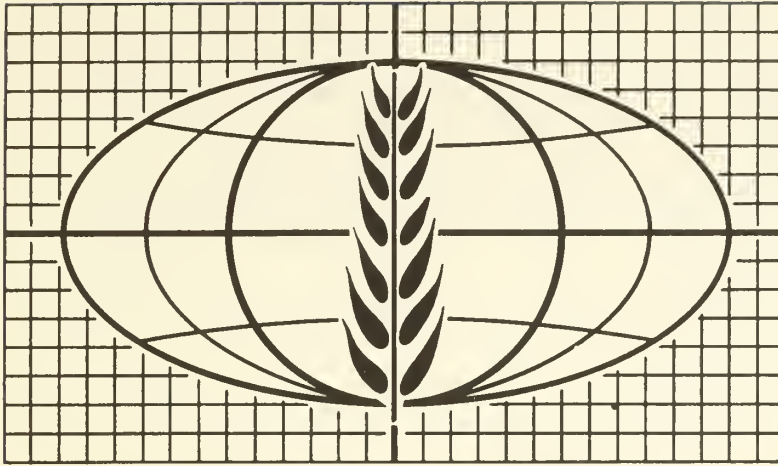


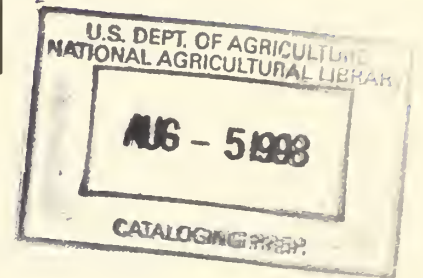
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THE AGRICULTURAL SITUATION IN THE FAR EAST AND OCEANIA

Review of 1969 and Outlook for 1970

U.S. DEPARTMENT OF AGRICULTURE
ECONOMIC RESEARCH SERVICE

Washington, D.C.



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ABSTRACT: Agricultural output in the Far East gained again in 1969 and stood above the trend value. Good increases occurred in South Asia, Korea, Thailand, Malaysia, and the Philippines. Serious drought in Australia brought a sharp decline in wheat production, but output of livestock products did well. Except for Indonesia, most rice importing countries of the region had good harvests and will not need to expand imports in 1970. The region imported less wheat and rice but somewhat more corn and sorghum in 1969. U.S. agricultural exports to the Far East dropped in 1969, mainly because wheat shipments to India and Pakistan under P.L. 480 were reduced.

FOREWORD

This annual publication of the U.S. Department of Agriculture provides an analytical basis for shortrun policy decisions and informs an interested public about current agricultural developments in the Far East and Oceania. It is one of five regional supplements to The World Agricultural Situation; Review of 1969 and Outlook for 1970, FAER 57. Other regional reports are being published for Western Europe, The Communist Areas, Africa and the Middle East, and the Western Hemisphere.

Statistical information relating to production and trade of agricultural products in the region will appear in a separate publication, The Far East and Oceania Agricultural Data Book, to be released in July.

Riley H. Kirby, Leader, Situation and Outlook Section, directed and coordinated the report. Others participating in the preparation of the report include Goodloe Barry, Boyd A. Chugg, Charles E. Goode, Nancy Hancock, Mary E. Long, John B. Parker, Jr., Virginia Salley, and Shirley R. Simpson.

U.S. Agricultural Attaches in several countries provided background material for this report through periodic situation and commodity reports.

Clarence E. Pike

Clarence E. Pike, Chief
Far East Branch
Foreign Regional Analysis Division

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Washington, D. C.

May 1970

SUMMARY

Agricultural output in the Far East in 1969 rose 4.5 percent above the previous year and stood above the trend value by a like amount. Much of the gain is traceable to India, partly because that country comprises about half the production of the region. Increases in Pakistan, Korea, Thailand, Malaysia, and the Philippines also contributed heavily. Production in Japan declined slightly from 1968 and was below the trend for 1969. In Vietnam production rose well above the previous year but still was 10 percent below trend.

India accounted for a more than proportionate share of the regional increase because that country achieved a rate of gain above the regional average. Wheat, the millets, sugarcane, jute, and peanuts did especially well there. Barley and gram declined. Pakistan accounted for 9 percent of the regional increase, about in proportion to its share of total production.

The Republic of Korea accounted for one-eighth of the overall gain, far beyond its usual share of output. This reflected a large increase in Korea's rice crop, in part a recovery from the effects of drought in the 2 preceding years and in part a general increase, which carried total production for the country 6 percent above the trend.

In Thailand production of rice, corn, kenaf, rubber, and peanuts made good advances. Rice in Malaysia rose 25 percent; rubber and palm oil also did well there.

Rice production in the Far East totaled 162 million tons 1/ in 1969, up about 4 percent. Except for Indonesia, most rice importing countries had good harvests and will not need to expand imports in 1970. Thailand and Japan will strive to expand their rice exports. Pakistan will try to move out more basmati rice and in turn import more of cheaper rice varieties.

Wheat and other grains except barley made good harvests in 1969. So did cotton, jute, sugarcane, rubber, and palm oil. The tobacco crop was down in several countries, and copra was essentially unchanged from 1968.

Countries of the Far East imported 26.3 million tons of all grains in 1969, down about 7 percent from 1968. Imports of wheat and flour fell to 12.2 million tons; India and Pakistan together took nearly 2.9 million tons less, but Japan, Korea, and Taiwan took somewhat more. Imports of rice fell slightly as the deficit countries had good harvests a year ago. Imports of corn and sorghum gained about 10 percent, mostly in support of the Japanese livestock industry.

U.S. exports of grain to the Far East totaled 14.7 million tons in 1969, down from 17 million a year earlier. This was 45 percent of all U.S. grain exports. It was 56 percent of the total imports of grain into the Far East in 1969--a slightly smaller share than obtained the previous year. A cutback in P.L. 480 shipments of wheat to India and Pakistan overshadowed U.S. gains in corn and sorghum to Japan and in wheat, rice, and corn to Korea.

Imports of all grains by the Far East countries this year may be up 2.5 million tons over 1969. More than half of this import gain may come in wheat (mainly into Pakistan with more moderate increases for India, Japan, and Korea) while the remainder is seen as a gain in corn (mostly in the Japanese market). Rice imports for the region are

1/ Tonnages in this report are metric.

not expected to change much from 1969. The United States exported nearly 1.3 million tons of rice to the Far East in 1969. Our shipments to that area may be somewhat less in 1970 because of slightly smaller U.S. supplies for export this year, while the traditional exporting countries have even larger quantities available than last year.

Total merchandise imports by the Far Eastern countries rose 10 percent in 1969, reaching an estimated \$31.6 billion. The unfavorable trade balance improved for the second year in a row. Food, beverages, and agricultural raw materials accounted for about 30 percent of the imports; fibers and cereals were the leading items.

U.S. exports of farm products to the Far East fell to \$2 billion in 1969, off \$200 million from 1968. The largest declines occurred in India and Pakistan as P.L. 480 shipments were cut back. Our exports to both countries combined fell \$170 million as U.S. wheat shipments tumbled to \$136 million, less than half the previous year.

U.S. exports to South Vietnam, the Philippines, and Hong Kong dropped about \$20 million each. A sharp reduction in rice shipments to South Vietnam overshadowed respectable gains in exports of dairy products, corn, flour, tobacco, cotton, and soybean oil. A serious loss occurred in shipments of cotton to Hong Kong as the textile industry there looked for cheaper growths and made increasing use of synthetics. A drop in U.S. exports of rice to Hong Kong was matched by larger takings of fruits and vegetables, especially fresh oranges. In trade with the Philippines, U.S. exports of wheat and cotton fell sharply. A smaller decline in nonfat dry milk was matched by a gain in tobacco.

U.S. agricultural exports to South Korea rose more than 50 percent to \$235 million in 1969. Most of the gain was in exports of rice. Smaller increases were shown for wheat, flour, corn, and cotton. No other country showed a significant gain in 1969. Japan, the leading commercial market for U.S. farm products, showed no change from the \$933 million level of the previous year.

There were gains in U.S. exports of several products to the Far East including rice, corn, and cattle hides. These were not sufficient, however, to offset sharp losses in wheat and cotton as well as smaller declines in sorghum and soybeans.

Exports of all commodities from Far Eastern countries were an estimated \$28 billion in 1969--up 16 percent from the year before. In recent years, about 30 percent of total exports have consisted of food, beverages, and agricultural raw materials. Rubber, tea, rice, sugar, silk, jute, and coconut products are important agricultural items exported.

The United States provides a market for about one-fourth of the region's total exports. Total U.S. imports from the Far East in 1969 were worth \$7.9 billion, up 21 percent from 1968. Three-fifths of the total came from Japan, and imports from that country are 90 percent non-agricultural. Agricultural imports from the region rose 4 percent to \$806 million.

The largest gain was in imports of rubber, which increased in quantity as well as unit value. Rubber from Malaysia rose 77 percent to a value of \$137 million. Singapore, Indonesia, and Thailand also moved more rubber to the United States.

Imports from the Philippines, leading supplier in the Far East, declined 10 percent to \$285 million. A sharp cutback in copra and coconut oil reflected the effects of dry weather on output of coconuts. This far overbalanced the 9 percent rise in imports of sugar from the Philippines. Imports from India were off \$12 million. The biggest loser was cashew nuts, but tea and sugar were down too.

Agricultural production in Australia declined about 3 percent in 1969/70. Although the wheat crop fell one-fourth below the previous year because of serious drought, it was still the third highest on record. Corn, sorghum, and sugar crops were also down. Meat production was up, and meat exports are expected to rise in 1970. Wheat exports may reach 6 million tons. Drought in New Zealand, the worst in many years, held down crop production for 1970. Milk production was unchanged in 1969 but has slumped in 1970 as a result of poor pasture conditions.

THE AGRICULTURAL SITUATION IN THE FAR EAST AND OCEANIA

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AUSTRALIA

Australia's agricultural production declined about 3 percent in 1969/70. The wheat crop was about 25 percent below the record 14.8 million tons produced the preceding season. Wheat stocks have increased in the past 4 years and will top the 9-million ton level by the end of 1970 unless exports exceed the average of the past 5 years. Smaller crops of corn, sorghum, and sugarcane resulted from dry weather in northern New South Wales and parts of Queensland. Meat production moved up slightly. Good foreign demand and high export prices prevailing for beef, mutton, and lamb should result in substantial meat exports again during 1970, particularly to the United States.

Gross national product (GNP) for the year ending June 30, 1970, is forecast at \$32.2 billion or 6 percent above 1968/69. Agriculture's share will probably be about 10 percent. Despite price declines in wool, and assuming wheat shipments increase, exports of farm products in 1969/70 will total about \$2.2 billion or the highest since 1966/67.

As of December 1, 1969, wheat carryover stocks totaled a record 7.1 million tons. Preharvest estimates pegged the 1969/70 wheat crop at 465-500 million bushels. This range was reduced sharply to about 400 million bushels when harvesting ended in January. The lower estimate--about three-fourths of the record output in 1968/69--reflected varied adverse weather throughout the wheat areas. Still the crop is exceeded only by those of 1966/67 and 1968/69. Drought in Queensland and Western Australia and late rains and frosts in New South Wales affected not only yields but also the quality of grain produced. If exports in the 1969/70 marketing year ending November 30 do not exceed 5.9 million tons, December 1 stocks could increase to 9.3 million tons (table 1).

A quota delivery system was adopted by the government and industry for both the 1969/70 and 1970/71 wheat crops. Advance payments of \$.123 per bushel for the 1969/70 crop were limited to deliveries of 357 million bushels to the Wheat Board. A guaranteed price of \$1.62 per bushel applied to the first 200 million bushels of wheat exported. The marketing quota for the 1970/71 crop has been officially announced at 318 million bushels. The \$1.23-per-bushel prepayment rate will also apply to 1970/71 crop deliveries.

The quota system, the first real attempt of the wheat industry and the government to control production, caused much dissension among farmers. When wheat exports increased during late 1969 and wheat deliveries from the 1969/70 crop were less than originally forecast, the Wheat Board accepted overquota wheat deliveries but charged

Table 1.--Australia: Supply and distribution of wheat, 1967-70

Item	1966/67	1967/68	1968/69	1969/70
	- - - - - 1,000 tons - - - - -			
December 1 opening stocks (including flour as wheat)	449	2,191	1,410	7,076
Production	12,699	7,547	14,804	10,995
Total supplies	13,148	9,738	16,214	18,071
Exports (Dec.-Nov.)	8,600	5,658	6,804	5,871
Domestic consumption	2,357	2,670	2,334	2,900
November 30 closing stocks	2,191	1,410	7,076	9,300

them against farmers' 1970/71 allotments. No advance payments are being made for over-quota deliveries except for such readily salable types as hard wheat or low-protein soft wheat.

In another move the government revised the fifth wheat stabilization plan adopted in 1969 by reducing the home consumption price of wheat from \$1.93 to \$1.61 per bushel. Regardless of this price adjustment, offgrade wheat has sold in interstate transactions outside the Wheat Board at about 80 cents per bushel. Such sales tended to depress the prices of corn, barley, and oats to the lowest levels in many years.

The 1969/70 rice crop, harvested from March to May, is forecast at 303,000 tons or about 19 percent above the 1968/69 harvest. The area planted to rice had been increased about 18 percent.

Milled rice exports in 1968/69 increased 8 percent. An even larger increase of 13 percent is forecast for 1969/70. Papua and New Guinea take about 30 percent of Australia's rice exports; other important outlets in 1968/69 were the United Kingdom and Okinawa. In 1969/70 commercial and aid shipments of rice are being made to Indonesia.

Barley production in 1969/70 is estimated at 1.8 million tons, up 20 percent. In 1968/69, barley exports, mainly to the United Kingdom and Japan, totaled 451,000 tons--3½ times the year-earlier level. Oat production is down slightly from the 1.7 million tons harvested in 1968/69. Exports of oats in 1968/69 were 80 percent above the previous year and are expected to remain at the 327,000-ton level in 1969/70.

Corn and sorghum production is down sharply in 1969/70 due primarily to the drought conditions in northern New South Wales and parts of Queensland. Sorghum output is estimated at 220,000 tons. This is 50 percent of the 1968/69 crop--and the smallest harvest since 1960/61. Improved moisture conditions in November encouraged farmers to plant summer crops of sorghum and oilseeds in areas where regular wheat and coarse grain crops failed.

Production of cotton continues to increase, and the 1969/70 crop should approximate 37,000 tons. Australia's imports have declined dramatically in the last 3 years and are forecast at about 5,000 tons in 1969/70. Its imports from the United States alone in the early 1960's averaged 12,000 tons. Exports of Australian cotton for 1969/70 are forecast at 7,000 tons--up from 1,000 tons in 1967/68 (table 2). The cotton industry annually absorbs about 29,000 tons of raw material. This includes 3,000 tons of long-staple cotton which is not produced in Australia and must be imported.

The 1969/70 tobacco crop is reported at 34 million pounds (dried weight) or just under the record crop produced in 1963/64. Production is so much above the domestic

Table 2.--Australia: Cotton production and trade, 1960-64 average and annual
1965-69 ^{1/}

Item	1960-64 average	1965	1966	1967	1968	1969 ^{2/}
	----- 1,000 tons -----					
Production ...	4	20	17	32	34	37
Imports	25	15	9	12	6	5
Exports	--	--	1	1	4	7

^{1/} Years beginning July 1.

^{2/} Estimates.

marketing quota of 28.5 million pounds set early in the season, that the government raised the quota to 31.5 million pounds. Even with this higher marketing quota about 2 million pounds were marketed at a special sale in Brisbane and charged against the 1970/71 season. The marketing quota for the 1970/71 crop has been increased to 34.7 million pounds. This probably will provide an additional incentive to farmers to increase production next year. Prospects for U.S. tobacco exports to Australia are not too bright, particularly since the quality of Victoria's leaf is improving.

The 1969/70 dried fruit pack is estimated at 81,000 tons--up about 53 percent from the previous year. Australia experienced difficulties in marketing its small pack in 1968/69 under provisions of the International Sultana Agreement and faced some stiff competition from Middle East producers for the U.K. and West European markets.

The 1969/70 cane crop of 15.5 million tons is down 17 percent from last year because of the drought in Queensland. Raw sugar production likely will fall to 2.1 million tons. Exports will decline to 1.4 million tons or 30 percent below the volume shipped in 1968/69. Even so, Australia will maintain its quota shipments of 178,000 tons to the United States as well as shipments to such traditional markets as United Kingdom, Japan, and New Zealand.

Total meat production in 1969/70 is forecast at 1.9 million tons--up 10 percent from 1968/69. Large quantities of frozen beef and veal were stockpiled in early 1970 as the result of forced slaughter in Queensland drought areas. Should heavy rains prevail in northern areas, slaughtering may decline because of the demand for cattle to restock pastures.

Beef cattle and sheep numbers are expected to increase about 5 percent in 1970. Dairy cattle will decline due to the continued shift from dairying to beef cattle production in some areas. Beef and veal production could increase about 7 percent due to heavier slaughtering weights, compared with 1969. Lamb slaughter will increase in 1970 stimulated by a strong demand for lamb in the U.S. market.

Of the overall 1970 U.S. meat import program, Australia's share of the 1,061-million-pound allocation is roughly 50 percent. Its meat shipments under quota are expected to total \$246 million in 1970, compared with \$235 million in 1969. This is mainly comprised of beef. Lamb shipments to the United States are not subject to quota limitations.

Wool production in 1969/70 probably will rise by 4 percent to 2,023 million pounds. Prices of wool declined in the last 6 months of 1969 to average 45 cents per pound against 52 cents per pound a year earlier. Prices are particularly depressed for merino wools. Total wool sales in late 1969 were up 8 percent above 1968.

Indications are that dairy production in 1969/70 will increase in all categories but cheese. The estimate for dried milk output is 156,000 tons or 15 percent more than in 1968/69.

The government continues to encourage agricultural production for export by paying exporters for their losses from the British pound devaluation in late 1967. Other incentives include increased subsidy payments to farmers using superphosphate and nitrogenous fertilizers, tax concessions on all structural improvements for water, fodder, and grain conservation, and grants and loans for drought relief.

New duties were announced late in 1969 by the Minister of Trade and Industry. They apply to imports of peanuts, soybeans, rapeseed, linseed, sunflower seed, safflower seed, cotton seed, and corn oil. This action was designed to protect farmers who might divert land from wheat to oil seed crops.

Australia will continue to promote export programs for grains, dairy products, fruits, and meats--particularly to such profitable markets as Singapore, Hong Kong, and Thailand. (Mary E. Long)

BURMA

Production of rice, Burma's most important crop, reached 8 million tons in 1969. Rice exports rose to 550,000 tons and may equal this level in 1970. Among the secondary crops pulses, peanuts, cotton, and jute showed increases last year while sugar, tobacco, vegetables, and fruit decreased.

Per capita GNP (deflated) has risen 1.5 percent per year since 1962 and reached \$80 in 1969. Agriculture's share of the total national product remained at 35 percent. About 80 percent of the Burmese population is engaged in agriculture.

The economic policies of the government include nationalization of domestic businesses, especially those owned by foreigners, and prohibition of private foreign investment in Burma. They also provide for an expansion of the role of cooperatives, including producer, consumer, and credit co-ops. Co-ops are scheduled to replace some private and state trading activities.

Burma's foreign trade decreased sharply during 1960-68 following losses in its largest export, rice. These trends were reversed in 1969, but total imports continued to decline. Imports of consumer goods decreased drastically over the last decade but imports of capital goods remained almost stable. The International Monetary Fund has extended balance-of-payments support to Burma because of declines in its exports and foreign exchange reserves. The loan will enable Burma to cut down on short-term, high cost loans to finance the imbalance.

Rice production first reached 8 million tons in 1962, and Burma has not been able to maintain increases above this level in the decade of the sixties. Area under production has varied but has not increased in this period either. Area planted in new rice varieties rose from 160,000 hectares in 1968 to 200,000 hectares in 1969. This was about 4 percent of the area planted in rice. The yields of new varieties in Burma are approximately double those of conventional varieties. New varieties are produced for domestic marketing in rice deficit areas rather than for export. Under present policies, they are a profitable crop for farmers. The government pays the same price for these varieties as for the popular ngasein rice.

Since rice is the staple food item, the government has kept its price low for consumers. Government sales on the domestic market are priced to cover costs, while export sales reflect substantial profits. The farmer has three legal outlets for his rice; it can be used for home consumption, sold within his township, and sold to the

government. Around urban centers some rice moves outside official channels. It is usually of high quality and thus commands a higher price.

For several years Burma has had short supplies of rice for export, mainly because government policies held procurement prices low and discouraged production. Government procurement in 1969 of the previous year's crop approximated 40 percent of total rice production, compared with only 33 percent in 1968. Procurement in 1969 was higher because the crop was better and because the government offered incentive programs using consumer goods in barter. Also, enforcement against illegal sales may have been stricter. The government accumulated an exportable surplus of around 900,000 tons of rice in 1969. It was able to export approximately 550,000 tons of this, well above the 1968 exports of 352,000 tons. Exports could rise moderately in 1970 if procurements continue at their present rate.

Production of pulses increased to 300,000 tons in 1969 and corn reached 90,000 tons. Exports of each, falling since the early 1960's, may rise in 1970. Cotton production has been disappointing. Exports of cotton have virtually ceased, as production fell off from the early 1960's and domestic production of yarn has consumed more of the local crop. Rubber production has been stable over the past 6 years at 12,000 tons. Rubber exports recovered to 13,000 tons in 1968/69 from a low 4,000 tons 2 years earlier.

United States agricultural trade with Burma is negligible. U.S. agricultural exports amounted to \$374,000 in 1969; this consisted mostly of nonfat dry milk. Total U.S. exports to Burma were valued at about \$10 million in 1969.

In 1969, Burmese farmers doubled their usage of fertilizer to 140,000 tons. Much of the increase was associated with the production of new rice varieties. The United States shipped 58,000 tons of fertilizer to Burma in 1968 but sold none to that country in 1969. A new fertilizer plant opened in Burma in 1969, another will open this year. They will have a combined capacity of over 120,000 tons of urea a year.

CEYLON

Economic conditions are improving in Ceylon. Government policies are contributing to expansion in agricultural production, industry, trade, and tourism. Floods in December left many villagers homeless in southern and eastern Ceylon. However, the deluge will benefit the maha rice crop harvested in the spring. The major export crops, tea and rubber in the hills and coconuts along the western and northern coast, escaped flood damage. Rice and wheat flour are being imported to replenish supplies destroyed by the floods.

Ceylon's foreign exchange earnings slipped slightly in 1969. Wheat flour and rice were imported largely from sources not requiring an immediate payment in convertible currency. Low tea prices and a surging demand for imported manufactures have led the government to intensify its efforts to find new sources of foreign exchange. A 55-percent bonus is now given in rupees to tourists when converting their money in Ceylon's hotels and banks. Foreign investment is encouraged, and planners are optimistic over ventures to expand tourist facilities and factories.

Ceylon's GNP increased about 5 percent in 1969 and reached \$2 billion for the first time. Impressive growth was made during 1969 in industrial plant capacity, tourism, and subsidiary food crop production. Business activity was brisk late in the year, after credit restrictions were eased in June.

Total rice production nudged up by 1 percent in 1969 to 1.4 million tons of paddy. This was still 43 percent higher than the turnout in 1966, when rice imports

peaked. The maha spring harvest was 8 percent higher than a year earlier. The smaller yala crop harvested later in the year was down 12 percent because of dry weather during the growing season. In 1969, improved rice varieties were planted in over half the paddy fields.

The major success of the Grow More Food campaign in 1967 and 1968 was in rice. In 1969 striking achievements were made in other food crops. Potato production doubled in 1969 and the harvest of chillies during the maha season was much greater than during the previous year. The government has programs to reduce imports of potatoes, chillies, and onions by increasing production of these crops.

Corn production increased from 10,000 tons in 1966 to 23,000 tons in 1969. The area planted to corn increased in the Badulla area and in the irrigated area of the Walawe scheme. The output of poultry feed almost doubled in 1969, and corn was a major ingredient.

Production of tea fell about 2 percent in 1969. Growers recorded smaller profits because of reduced tea prices and rising labor costs.

Rubber production increased slightly to 150,000 tons in 1969. Higher yields from improved new varieties of rubber caused the rise. About half of the area in rubber has been replanted with high yielding varieties since 1954. Their yields after 8 years are almost double those of older trees.

Coconut production has declined slightly in recent years because of adverse weather and little enthusiasm for planting new trees. New projects like the Katunayake Airport and some factories near Colombo have been built in prime coconut-producing areas, and consequently many trees were cut down.

Volume of Ceylon's tea exports in the first 9 months of 1969 was up 4.5 percent from the comparable period of 1968, but lower prices caused a decline in value of 1 percent. Exports to the United Kingdom rose during the year as shipments from India to that market declined. Prices for low-grown teas declined gradually in late 1969. The average export price for Ceylonese tea declined from 93.5 cents per kilogram in 1968 to about 83.5 cents in the first 9 months of 1969. Exports of tea to the United States, Australia, South Africa and some other important markets in 1969 were slightly higher than in 1968.

Export volume of natural rubber in 1969 approximated the 149,000 tons shipped in 1968, but higher prices caused the value to rise by over 30 percent. Under the rubber-for-rice trade agreement, Ceylon sends enough rubber to mainland China to obtain 200,000 tons of rice. Other important and steady markets for Ceylon's rubber the last 5 years include the United States, Canada, Japan, and West Germany. Exports of rubber to the USSR and Poland have declined by about 50 percent since 1964.

Exports of coconut oil in the first 9 months of 1969 were 10 percent off the year-earlier pace, and exports of copra were down 9 percent. Exports of desiccated coconuts in the first 9 months of 1969 were running 21 percent below 1968 levels. The decline in coconut production and higher transportation costs to Western Europe contributed to the decline.

Imports of wheat flour in 1969 were down about 7 percent from the 429,000 tons required a year earlier, but imports from the United States rose. In 1970 imports of wheat flour likely will exceed 400,000 tons, with about half the supply coming from the United States. Imports of wheat from Australia and the United States are increasing for use in the new flour mill and may reach 70,000 tons in 1970.

Imports of rice declined from 370,000 tons in 1968 to about 300,000 tons in 1969 and likely will remain at this level in 1970. Arrivals of rice from Burma and Thailand declined sharply in 1969. The Food Commissioner was reluctant to import rice intended for free distribution to ration cardholders from sources requiring payment in convertible currency. Ceylon imported about 15,000 tons of IR-8 rice from West Pakistan in exchange for tea, and further imports from that source are likely in 1970.

U.S. agricultural exports to Ceylon declined from \$18.8 million in 1968 to \$13.5 million in 1969. Wheat flour accounted for over 95 percent of each value and fell from 215,000 tons to 138,000 tons. U.S. agricultural imports from Ceylon in 1969 were about the same as the \$27.8 million recorded in 1968. The major imports were tea valued at \$20.3 million and rubber worth \$4.3 million. (John B. Parker, Jr.)

HONG KONG

The Crown Colony's economy continued to expand in 1969, with exports, imports, tourism, and textile industries showing strong gains. For 1969, GNP likely exceeded the \$2.7 billion registered in 1968 and per capita income surpassed the \$611 level.

The Colony took more rice and corn from abroad in 1969, but less raw cotton, wheat, and wheat flour. U.S. exports of rice, raw cotton, and soybeans to Hong Kong declined in 1969, but our exports of fresh oranges, various fruit products, and frozen poultry increased sharply.

The textile industry continues to expand and modernize its equipment as it shifts toward the use of more synthetic fibers. The cotton spinning mills are now operating some 811,000 spindles. An additional 38,000 spindles being installed will blend yarns to meet strong world demand for fabrics of mixed cotton and manmade fibers. Textile exports were valued at \$583 million in the first 9 months of 1969, compared with \$666 million in all of 1968. Clothing represents about 78 percent of all textile exports.

Hong Kong's total imports were estimated at \$2.4 billion in 1969, up 20 percent. Food, beverages, and agricultural raw materials made up about one-fourth of the total. Grain imports were estimated at 663,000 tons, slightly less than in 1968. Live animals and meat--major imports--came mostly from mainland China.

Rice imports in 1969 were estimated at 347,000 tons, 10 percent more than 1968. Imports from Thailand increased sharply to an estimated 180,000 tons in 1969 or 52 percent of Hong Kong's rice market. Imports from the United States were less than half the 40,000-ton level of the 2 preceding years. Takings from mainland China were about 83,000 tons in 1969, less than in previous years.

Corn imports were estimated at 158,000 tons in 1969, 11 percent above 1968. Thailand's market share slipped to three-fourths when Indonesia came in with about 20,000 tons. Wheat imports in 1969 totaled 128,000 tons, nearly 10 percent shy of the record level set the previous year. Australia's share of the Colony's wheat market declined to 48 percent. Canada and the United States each supplied approximately 25,000 tons, about the same as the previous year. Wheat flour imports in 1969 declined to an estimated 26,000 tons, compared with 44,000 tons in 1968. Japan, Canada, and Australia were the major suppliers. Imports of wheat flour declined because local flour mills are cornering larger share of the local market. Imports of fresh oranges in 1969 totaled 66,000 tons compared with 59,000 tons in 1968. The United States supplied 69 percent of this market.

In 1969, Hong Kong's imports of fresh, chilled and frozen poultry, including offals and liver, totaled 22,000 tons. The United States and mainland China were the main suppliers. Other sources were Denmark, the Netherlands, and West Germany.

Hong Kong's cotton imports in 1969 were about one-fourth less than the high 196,000-ton level of 1968. Shipments from the United States were off even more sharply. Increasing use of synthetic fibers and competition from foreign growths made their marks in 1969.

Led by reduced shipments of rice and raw cotton, U.S. agricultural exports to Hong Kong declined from a high of \$72.4 million in 1968 to \$54.6 million in 1969. Exports of raw cotton fell to 116,000 bales from 200,000 bales. Larger shipments of meat, dairy products, and especially fruits and vegetables prevented a steeper cut-back in agricultural exports.

Hong Kong's total exports rose to \$2.1 billion in 1969 from \$1.73 billion in 1968. Its exports are almost entirely industrial products. The Colony exported 25,000 tons of wheat flour in 1969; about half went to Indonesia. The United States remained the major market for Hong Kong's exports, taking \$899 million worth in 1969 or 42 percent by value.

Hong Kong's surging economy and free trade policy, combined with recent U.S. promotional efforts, provided a generally favorable climate for expanded sales of American products. Gains in income are providing a steadily growing market for various consumer goods. Several unexpected U.S. rice orders were placed in 1969 because of the Thai's unstable rice prices; but barring special developments, additional rice sales are not foreseen in the near future. On the other hand, dairy products, tobacco, wheat, animal feeds, fruits, vegetables, processed goods, and frozen poultry meat are showing promising growth. (Charles E. Goode)

INDIA

Favorable monsoon rainfall and increased use of improved agricultural inputs in 1969 enabled Indian farmers to harvest record crops of rice, wheat, grain sorghum, vegetables, and fruits. Dry weather from October through mid-January lowered earlier harvest expectations for wheat, barley, and pulses in the spring of 1970.

Still, total foodgrain production in 1969/70 is expected to approach 100 million tons, compared with 94 million tons in 1968/69. Per capita availability of foodgrains in 1970 will be below the levels recorded in 1965 and 1968. Imports of foodgrains declined to 3.9 million tons in 1969, continuing the downtrend evident since the peak in 1966 (table 3). They may be even lower in 1970. More than 3 million tons of wheat may be imported in 1970, mostly in the first half of the year. Shortages of cotton and vegetable oils will cause larger imports of other agricultural commodities in 1970.

Economic activity continued to gain momentum in 1969, despite political uncertainty and shortages of steel, vegetable oils, and certain raw materials. Overall industrial output for India was up 7 percent in 1969. Expansion in the textile industry was hampered by a shortage of certain types of cotton. The output of fertilizer, automobiles, bicycles, tractors and engineering products increased moderately.

GNP for 1969 was about \$47 billion, up 6 percent. The money supply increased about 9 percent, and purchases of consumer goods were considerably higher. Foreign exchange reserves increased from \$682 million at the end of 1968 to \$965 million at the end of November 1969.

Fertilizer consumption rose slightly to 1.8 million nutrient tons in 1968/69. A 10-percent excise tax on fertilizer slowed the increase in fertilizer usage. Fertilizer imports declined, while domestic output increased moderately. Demand for tractors continues strong. Some 18,000 farm tractors will be assembled in 1970,

Table 3.--India: Availability of foodgrains, annual 1964-70

Item	1964	1965	1966	1967	1968	1969	1970
	- - - - - <u>Million tons</u> - - - - -						
GROSS AVAILABILITY							
Rice:							
Production	36.9	37.0	30.6	30.4	37.6	39.8	41.0
Net trade	0.6	0.8	0.8	0.5	0.4	0.5	0.5
Supply	37.5	39.8	31.4	30.9	38.0	40.3	41.5
Wheat:							
Production	9.9	12.3	10.4	11.4	16.5	18.7	19.5
Net trade	5.6	6.5	7.8	6.5	4.8	3.1	3.2
Supply	15.5	18.8	18.2	17.9	21.3	21.8	22.7
Other cereals:							
Production	23.7	25.2	21.2	24.1	28.8	25.2	28.5
Net trade	0.1	0.2	1.8	1.9	0.5	0.3	0.1
Supply	23.8	25.4	23.0	26.0	29.3	25.5	28.6
Pulses:							
Production	10.1	12.4	9.8	8.4	12.1	10.4	11.0
Net trade	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Supply	10.1	12.4	9.8	8.4	12.1	10.4	11.0
Total foodgrains:							
Production	80.6	88.9	72.0	74.3	95.0	94.1	100.0
Net trade	6.3	7.5	10.4	8.9	5.7	3.9	3.8
Supply	86.9	94.4	82.4	83.2	100.7	98.0	103.8
PER CAPITA AVAILABILITY	- - - - - <u>Kilograms</u> - - - - -						
Rice	78.9	81.9	62.9	60.5	72.5	75.0	75.5
Wheat	32.6	38.7	36.5	35.0	40.6	40.6	41.3
Other cereals	50.1	52.3	46.1	50.9	55.9	47.5	52.2
Pulses	21.3	25.5	19.6	16.4	23.1	19.4	20.0
Total	182.9	198.4	165.1	162.8	192.1	182.5	189.0

mostly 35 horsepower models. Larger imports of tractors are planned in 1970, including 7,000 from Czechoslovakia and 5,000 from the USSR. About 100,000 tractors were in use in early 1970, and a numerical increase of almost 30 percent is expected during 1970. Most of the tractors are located in areas where wheat is grown under irrigation. Less than 5 percent of all cropland in India is cultivated by tractors.

Rice production during 1969/70 is estimated at a record 41 million tons (milled basis). The 3-percent increase in output is attributed to improved yields. Monsoon rainfall was favorable for rice production in most major growing areas in 1969. A marked increase in 1969/70 plantings of high yielding varieties of rice occurred in West Bengal, Uttar Pradesh, Orissa, and Bihar. The total area planted in high yielding varieties in 1969/70 was about three times the 1967/68 level.

The Central Rice Research Institute at Cuttack strives to introduce new varieties which have favorable consumer reception and which carry resistance to certain diseases. Padma and Gaya--two new varieties--have done well in northern India. Sales of IR-8 rice were not easy to make in Tamil Nadu in late 1969. Many farmers had to market a large part of their IR-8 rice through procurement centers.

Good rains during the summer were beneficial to grain sorghums and corn. Production of coarse grains is estimated at 28.5 million tons in 1969/70, up 13 percent from the previous year.

Wheat production in 1970 is forecast at 19.5 million tons. This would be a record crop despite dry weather during the first part of the growing season. About 30 percent of the 16-million-hectare wheat area in 1969/70 was planted in high yielding varieties. The fields so planted are all under irrigation, and they will account for over half of the total wheat crop this season.

Gains in the production of foodgrains in 1969 were less striking than those recorded for some other crops. Growing conditions were good for cotton and jute. Cotton production approached 1.2 million tons in 1969. Damage to cotton plants from tirak disease lowered yields in Rajasthan and Punjab. Larger cotton harvests in Maharashtra and Gujarat helped boost India's cotton production by 8 percent in 1969 although the total area planted was about the same. The area planted in long staple varieties has gradually increased. Smaller plantings of medium staple varieties have lowered the proportion of cottonseed to lint.

Mill consumption of cotton increased slightly in 1969 and further gains are expected in 1970. Domestic demand for cotton textiles is increasing faster than supplies of raw cotton. The upswing in textile demand has resulted in the reopening of some mills which were closed in the last 3 years when times were difficult for small operators. Indian cotton mills are expected to use almost 7 million bales (180 kilograms each) during 1970. Manmade fibers currently account for slightly over 10 percent of the textiles sold in India, but over one-fourth of the exports of textiles. Output of manmade fibers is growing more slowly in India than in some other countries in Asia. Many Indians do not like clothes made from manmade fibers, and their cost is still relatively high.

Imports of raw cotton declined sharply during the year ended July 31, 1969. A delay in shipments of cotton from the United States under P.L. 480 contributed to the decline. Use of domestic cotton increased as stocks of imported cotton declined in 1969. With much larger shipments expected under P.L. 480, India's total imports of cotton in 1969/70 may approach the 142,000-ton level of 1967/68.

Exports account for about one-tenth of the sales by India's textile industries. Exports subsidies of the foreign exchange entitlement scheme caused some firms to export textiles for slightly less than the cost of production. By exporting textiles,

these firms are allowed to retain foreign exchange they can use to import machinery and urgently needed spare parts.

Favorable weather and an expansion in the planted area in 1969 produced a bumper jute harvest of about 1.2 million tons, compared with 549,000 tons in 1968. As a result, mill output of jute products increased markedly in late 1969. Over 95 percent of the Indian jute crop is used by domestic mills. When supplies are ample some raw jute is exported to the USSR under trade agreements. About 60 percent of the jute products made in India are exported, and foreign demand remains good. Higher exports of carpet backing and some other jute products in the last 2 years offset smaller exports of jute burlap.

The tobacco crop in 1970 is likely to be about 18 percent less than the 347,000 tons harvested in 1969. Floods damaged part of the crop in Guntur district of Andhra Pradesh. Poor weather lowered the quality of flue-cured tobacco, and export prices may decline.

Production of oilseed crops improved in 1969 but remained below the peak level attained in 1967. The peanut crop increased from 4.5 million tons in 1968 to 5.2 million tons in 1969. The production of mustard and rapeseed was close to the 1.6-million-ton level of 1968. In recent years, soybean production has increased in Uttar Pradesh and Madhya Pradesh. Indian farmers are expected to produce over 100,000 tons of soybeans in 1970. The production of safflower and nigerseed is also increasing.

Tea production edged upward to 390,000 tons in 1969. Labor problems in West Bengal resulted in smaller pickings there. Low prices and ownership transfer of some tea plantation also slowed harvesting operations. Coffee production increased to about 73,000 tons. Higher prices and good export sales encouraged coffee growers to use more fertilizer. New plantings of cashew nuts were subsidized by the state government in Tamil Nadu. New banana groves planted in Gujarat and Tamil Nadu will provide fruit for future exports. New mango varieties were planted commercially near some large cities.

In 1969, production of deciduous fruits made a large increase. Farmers in Jammu and Kashmir, Himachal Pradesh, and Uttar Pradesh harvested a record quantity of apples. Most of these apples were sold in urban areas throughout India. Production of grapes has expanded markedly in the districts of Poona Hyderabad and Bangalore.

Production of vegetables, including potatoes, is estimated at about 32 million tons in 1969/70. Commercial production of these crops is increasing rapidly near urban centers and in irrigated areas as many farmers find that vegetables double crop well with wheat and rice. About 100,000 tons of onions were exported in 1969.

India's total exports reached \$1.8 billion during the financial year ended March 31, 1969, up 13 percent over the preceding year. Exports during 1969/70 grew at a slower pace and totaled about \$1.9 billion. Exports of jute carpet backing rose sharply, and manufactures accounted for most of the export growth.

Agricultural exports in calendar 1969 approximated the \$623 million value recorded in 1968. Low tea prices and lagging production of some oilseed crops limited export opportunities. Tea exports were down in 1969 because of smaller shipments to the United Kingdom. Competition from Ceylon and East Africa lowered India's prospects for tea sales in London. Exports of tea increased to the USSR and the Middle East. Slightly more peanut meal moved to Eastern Europe. Tobacco exports changed little. Slightly smaller tobacco shipments to the United Kingdom were offset by larger exports to the USSR. Deliveries of cashew kernels to the USSR increased while those to the United States declined. Overseas sales of cashew kernels totaled 66,250 tons in 1969. Exports of spices increased in value because of higher prices.

The ban on exports of foodgrains continues except for shipments to Indians living abroad, the border trade with Nepal, and special barter arrangements.

Total imports by India declined in 1969 to about \$2.3 billion. Agricultural imports in 1969 were only about half the \$1 billion recorded in 1967. Imports of foodgrains and fertilizer were down.

Wheat imports declined from 4.8 million tons in 1968 to 3.1 million tons in 1969. Arrivals from the United States fell from 3.8 million tons to 2.2 million tons. Imports of U.S. wheat purchased outside P.L. 480 declined from 437,000 tons in 1967 to 34,000 tons in 1969. Arrivals of wheat donated by Canada declined slightly in 1969 to 586,000 tons. Imports of Australian wheat fell from 234,000 tons in 1968 to 69,000 tons in 1969, while European wheat jumped from 41,000 tons to 236,000 tons.

Imports of soybean oil increased in 1969. Larger imports of vegetable oils are anticipated in 1970 to cope with the growing shortage. Tallow imports are also expected to rise this year.

Cotton imports declined from 145,000 tons in 1968 to about 117,000 tons in 1969. Larger imports of cotton are likely in 1970, with about one-third of the supply coming from the United States. The United States, UAR, Sudan, and East Africa usually supply most of India's cotton imports.

U.S. agricultural exports to India declined from \$363.5 million in 1968 to \$261.7 million in 1969. Another decline is likely in 1970 unless U.S. vegetable oil and cotton shipments to India are favorably financed. About 1.7 million tons of wheat valued at about \$100 million are scheduled for shipment under P.L. 480 to India before June 30, 1970. Our total wheat exports to India during 1970 are likely to approximate 2 million tons. Exports of wheat from the United States to India declined from 4.1 million tons in 1968 to 2.1 million tons in 1969. Exports of grain sorghums to India declined from 1.7 million tons in 1967 to 294,000 tons in 1969.

American imports of all items from India in 1969 were slightly higher than the \$312 million recorded in 1968. Jute products, particularly carpet backing, accounted for about half of the American imports from India in 1969. U.S. imports of agricultural commodities from India were down because of smaller arrivals of cashew kernels and tea. Larger purchases of Indian cashew kernels by the USSR lowered supplies available for export to American customers.

Marked changes are occurring in the diet of the people in the topmost income levels. Many urban Indians are adding new items to their diet. Sales of biscuits, ice cream, carbonated soft drinks, loaf bread, and chicken meat are increasing rapidly. In 1969, foodgrains accounted for over two-thirds of the approximately 2,100 calories obtained daily by the average Indian from all foods. (John B. Parker, Jr.)

INDONESIA

Although the output of Indonesia's all-important rice crop was considerably lower than early estimates, the 1969 rice harvest did surpass by a narrow margin the record crop of 1968. Corn, second only to rice as an Indonesian food staple, bettered the small 1968 production by more than 10 percent. Substantial increases in output also were registered by soybeans, peanuts, sweetpotatoes, and sugar. Production of rubber, the top moneymaking agricultural export, stagnated. Palm oil production was down 8 percent. Coffee's gains were a scant 2.5 percent. The tobacco crop stood almost alone among export crops with a strong 18-percent advance.

Indonesia seems to have won its long struggle against inflation. The dizzy price advance of 650 percent in 1966 was cut to less than 10 percent in 1969. Although a severely trimmed budget and painfully tight credit broke the inflationary spiral, these controls resulted in near stagnation of economic activity. The government is now concentrating on an expansionary fiscal and monetary program to get the economy moving again. Sharply increased credit is being made available for the export trade and for agriculture, which is Indonesia's major source of export goods.

Indonesia's balance of payments improved in 1969, moving up to a surplus of \$23 million from a deficit of \$12 million in 1968. Imports were higher than expected, but the import value of consumer goods was down. Imports of machinery, transportation equipment, and raw materials--items needed to support domestic production--were up.

Ideal weather together with expanded use of seeds and improved cultural practices favored a record rice harvest of 16.0 million tons of paddy in 1968, up 12 percent. The 1969 crop is estimated at 16.2 million tons, down 2 million tons from earlier expectations and only 1 percent above the 1968 level. To avoid a food shortage government planners moved fast in late 1969 to contract for overseas purchases of 280,000 tons of rice for immediate delivery. Enough foreign rice arrived in time to satisfy increased consumption demands during the yearend holiday season. Prices leveled off as additional supplies arrived. Imports for the entire year reached 606,000 tons. Over half came from the United States under P.L. 480. The remainder, in order of volume, arrived from Burma, Thailand, Egypt, Australia, Japan, Cambodia, and Singapore.

More serious a problem than the weather-damaged autumn crop was the late arrival of the wet monsoon. Its tardiness set back rice planting for the next main wet crop by 4 to 6 weeks and delayed the coming harvest accordingly. Officials were extremely reluctant to publicize the country's rice import needs in 1970. However, most believed requirements would be higher than last year's 600,000 tons.

To ease the pressure on tight rice supplies, Indonesia imported more than 300,000 tons of wheat flour in 1969. Most of this flour went to big cities where the demand was strongest. The United States, with shipments of 163,000 tons, was the largest supplier. Australia shipped about 43,000 tons. Other exporters included Japan, Hong Kong, and Singapore. Last November the United States agreed to supply Indonesia with 150,000 tons of flour under P.L. 480. Most of the deliveries should be made in the first 6 months of 1970. Indonesian food planners have projected total flour imports of 500,000 tons in 1970, but actual receipts may well be lower.

Early estimates place Indonesia's important 1969 corn crop at about 3 million tons, up 10 percent from the lean harvest of 1968. This volume was generally considered adequate to meet the 1969 export goal of 180,000 tons, almost three times the 1968 level of 65,000 tons. With favorable growing weather and a larger share of available fertilizer, corn exports may rise to 250,000 tons in 1970. Japanese activity continues in promoting production of varieties suitable for their growing livestock industry. A large U.S. firm recently showed interest in establishing a mixed feed industry in Indonesia.

Indonesia is now unable to supply its own sugar needs. Exports were abandoned in 1966, and since then imports have ranged from 30,000 to 50,000 tons a year. With a gain in production of refined sugar from 625,000 tons in 1968 to 677,000 tons in 1969, the government plans to end sugar imports and resume exports before the new development plan ends.

Production of yarn and cotton cloth began to climb in 1969. This followed a long wait for spare parts needed to repair idle equipment in Indonesia's textile mills. Output of cotton cloth rose 40 percent to 450 million meters. Imports of cloth dropped more than 15 percent to 447 million meters. If the recently launched development plan is successful, domestic output of cloth will double by 1973 and imports level off. Yarn production in 1969 reached about 190,000 bales (400 pounds each) a gain of 60,000 from 1968. Imports of yarn totaled 184,000 bales. The target for 1973 is 375,000 bales produced and 260,000 bales imported. Imports of raw cotton increased dramatically during the last decade and reached an estimated 190,000 bales in 1969, of which 123,000 bales were from the U.S. Raw cotton imports in 1970 should run 30,000 to 50,000 bales higher than last year.

Production of rubber, a major foreign exchange earner, was 762,000 tons in 1969, scarcely changed from the previous year. However, 1969 prices--and therefore earnings--were substantially higher. For more than a decade output gained by less than 1 percent a year as plantations were neglected. Furthermore, replanting schedules were ignored, and recent surveys indicate that 60 percent of the plantings are too old to yield optimum returns or to respond much to larger applications of fertilizer now possible.

The output of palm oil, over the years a steady earner of foreign exchange, slipped off 8 percent in 1969 to 172,000 tons. The disappointing performance of palm oil--like rubber--was attributed to failure to replace old trees which had passed their production peak, and to past shortages of fertilizer. The Asian Development Bank's first loan to Indonesia was for \$3.5 million to rehabilitate one of the nation's largest oil palm estates.

Two of Indonesia's leading sources of proteins, soybeans and peanuts, made the best gains among all crops. Peanuts soared 29 percent to 492,000 tons, and soybeans went up 33 percent to 442,000 tons. Indonesians are becoming more nutrition conscious, and steadily increasing production gains probably will be encouraged.

Sweetpotato production went up 589,000 tons to 2.7 million tons in 1969 while the output of cassava declined 527,000 tons to 11.8 million tons. Although sweetpotatoes have a slight edge over cassava in nutrient value, the net gain for Indonesia's food supply was negligible. Production of both cassava and sweetpotatoes has been relatively low over the last decade as many farmers moved their plantings to less fertile areas to make way for rice or other more profitable crops on the better lands.

Coffee production, at 167,000 tons in 1969, was unchanged. However, both estate and smallholder crops have made a very substantial gain from the 89,000-ton level 10 years ago. The International Coffee Agreement tends to stabilize prices but limits shipments. Hence, much of increased volume must find markets in nonmember countries.

Indonesia's output of tobacco made a good 18-percent gain to 130,000 ton in 1969. In recent years, however, quality--and export prices--have declined. The government plans to help smallholders and estates to grow and market a better product. (Goodloe Barry)

JAPAN

Production of major crops in 1970 is expected to continue the downward trend of the past 2 years. Rice output likely will drop. Wheat production is forecast at 650,000 tons or 15 percent below last year. Barley is expected to yield a 750,000-ton harvest, the smallest since 1963. Production gains in 1969 for livestock products, particularly pork, milk, and eggs, should continue in 1970.

Imports of agricultural commodities during 1969 totaled \$3.7 billion or 8 percent above 1968. More than 50 percent of Japan's imports of farm products last year consisted of wheat, corn, grain sorghum, barley, soybeans, cotton, tallow, and tobacco leaf. Of this trade totaling \$1.7 billion, the United States supplied one-half.

GNP for 1969 (current price basis) is estimated at \$167 billion or 17 percent above 1968. At constant prices GNP was up 13 percent. Per capita GNP approached \$1,400. Forecasts indicate an equal gain in 1970. Agriculture's contribution to the GNP declined slightly in 1969; it is estimated at \$15 billion or 9 percent of the total. Most of this decline reflected efforts to stabilize rice prices and trim output. Foreign exchange reserves at the end of 1969 were estimated at \$3.7 billion, up 25 percent.

Consumer prices continued their uptrend, rising about 5 percent during the year. Most of this increase was in the foodstuffs sector, chiefly fish, processed foods, vegetables, and fruits. Prices for rice remained unchanged. Prices for livestock products, particularly milk and meats, were well above those in most countries of the world. Japan's high food prices stem from policies restricting agricultural imports and from production declines in most food crops.

The 1969 rice crop--17.5 million tons of paddy--was down 3 percent from the record harvest of 1967. The 1970 crop may be down another 10 percent, depending on the amount of rice area diverted to other crops. Nevertheless, carryover stocks on November 1, 1970, are expected to total 5.7 million tons, the highest of record (table 4).

Table 4.--Japan: Supply and Distribution of milled rice; 1960-64 average and annual 1968 through 1970 ^{1/}

Item	Average 1960-64	1968	1969	1970 ^{2/}
	<u>1,000 tons</u>			
Beginning stocks				
Production:	3,351	3,617	4,938	5,752
Paddy	15,920	18,061	17,504	16,986
Milled	11,590	13,149	12,743	11,500
Imports	368	283	54	15
Exports	0	300	364	500
Domestic consumption ..	11,765	11,811	11,619	11,580
Closing stocks	3,543	4,938	5,752	5,187

^{1/} Years beginning November 1.

^{2/} Estimated.

Other grain crops and pulses continued a downward trend in 1969. Wheat production fell to 758,000 tons or 25 percent below 1968, reflecting reduced plantings and unfavorable weather. A smaller wheat crop of about 650,000 tons is expected in 1970 because of a 15-percent cutback in plantings. Other reductions in 1970 crops are likely for pulses and feedgrains.

The main emphasis in fruit crops in recent years has been on the production of satsuma (mandarin) oranges. Production of 2.3 million tons in 1969 was just slightly below the record harvest in 1968. Area in oranges has expanded rapidly in recent years because of a strong demand and favorable returns to growers compared with some other crops. Citrus trees can also be grown on rough terrain, and in some areas they

are combined with tea plantings. About 80 percent of the crop is utilized in domestic consumption. Canned satsuma orange production is by far the largest fruit item processed in Japan. The 1969/70 pack of canned oranges will total around 12.5 million cases--a record.

Overproduction of rice poses a major agricultural problem. Large surplus rice stocks have brought into focus the need for revision of the country's agricultural policy from both a production and trade standpoint. The traditional policy of increasing rice prices paid to farmers was terminated in 1969, but more definitive measures must be taken to interest farmers in other crops and livestock production.

Late in 1969 the Ministry of Agriculture announced a 3-year plan to reduce the rice area by 350,000 hectares per year beginning with the 1970 crop. Land diverted in the 1970 season may not exceed 30,000 hectares. Most of this area is expected to be sown to forage crops in an effort to establish pastures for increased livestock production. Beginning with 1970, the government's purchase price for rice may be pegged at the 1969 level but set on a quality sliding-scale basis to encourage production of high quality rice.

Legislation calling for major changes in the land tenure act is expected to be presented to the Diet for approval sometime in 1970. Problems arise from inefficient use of machinery, shortages of labor, and the small size of most farms. Until legislation is enacted to permit fundamental changes in agricultural policy, significant changes in overall farming are unlikely.

About \$2.2 million has been budgeted by the government to improve citrus fruit production. Approximate allocations are \$900,000 to assist tangerine producers, \$600,000 to build fruit juice processing plants, and the remainder to construct storehouses for tangerines.

Japan's cotton imports in 1969 totaled 677,000 tons, compared with 808,000 tons in 1968. This trade was valued at \$414 million--down 18 percent. The United States supplied 109,000 tons, less than half the level of 1968. Imports of U.S. cotton were partially offset by increased imports from Mexico and Brazil. The U.S. shipping strike in early 1969 and shortages of certain lengths of U.S. cotton were behind the reduced shipments of U.S. cotton to Japan. Japan should import 680,000 tons of cotton in 1969/70 with the U.S. share at about one-fifth.

Consumption of raw cotton in 1969/70 is expected to decline from the 754,000 tons a year earlier. In recent years, cotton spinners have been decreasing their production of cotton yarns and cotton fabrics while emphasizing production of woolen textiles, manmade fibers, and synthetic materials. Cotton yarns and cotton mixtures still accounted for about 60 percent of total yarn turnout in 1969 but less than 50 percent of all fabric production.

Wheat consumption for food use has begun to level off, and increased consumption is now related to the 1-percent annual growth in population. Further gains in Japanese wheat consumption depend largely on the growth of large-scale bakeries and the promotion of biscuits and speciality wheat flour products. To date the progress in the baking industry has been slow, and foreign investments in this field are still restricted.

Total imports of wheat in 1969 reached a record 4.3 million tons or 6 percent above 1968. Of this trade, the United States supplied 2 million, little change from a year earlier. Total imports in 1970 are forecast at 4.5 million tons. Imports of U.S. wheat in 1970 will probably increase to 2.1 million tons. Japan is expected to increase its imports of U.S. hard wheats to supplement smaller imports of Canadian Manitoba No. 4 and Australian Queensland Prime Hard.

Feedgrain imports in 1969 totaled 9.1 million tons. The bulk consisted of 5.5 million tons of corn and 2.9 million tons of grain sorghum, largely supplied by the United States. The U.S. share of the corn market in Japan increased from about 50 percent in 1968 to 60 percent in 1969, reflecting reduced takings from South Africa which had a poor crop. Imports of feedgrains in 1970 are forecast at 10 percent above last year. Most of this increase will be in corn, imports which are currently estimated at 6 million tons. The United States will retain its large share of the corn market. Argentina, South Africa and Thailand will supply most of the remainder. Sorghum imports for 1970 will be about 3 million tons. The level will depend upon the relationship of sorghum prices to corn. In the past 3 years, import prices for corn have been less than sorghum while volume imports of sorghum have averaged about half as much as corn.

Imports of tobacco leaf in 1970 are forecast at the 35,000-ton level, up 6 percent. Large carryover stocks of all types of tobacco are expected to meet processor needs for many months. A program introduced by Japan's tobacco industry to improve the domestic leaf may result in reduced tobacco imports--particularly of flue-cured types--within a few years.

Imports of soybeans in 1969 amounted to 2.6 million tons or 6 percent above 1968. Consumption of soybeans for all purposes is expected to increase by 10 percent in 1970, and imports are expected to rise by about the same percentage. The planned increase in soybean imports should offset discontinued deliveries of Russian sunflower seeds. The United States supplied 85 percent of Japan's total imports of soybeans in 1969.

The Japanese government further reduced the import tariff on soybeans effective early 1970. This reduction is in keeping with scheduled GATT concessions negotiated under the Kennedy Round. The new rate will be \$6.66 per ton, compared with the current rate of \$9.33 per ton. Sorghum and dried dates were placed on the Automatic Approval list effective April 1, 1970. The duty on raisins, in containers over 10 kilograms, is to be reduced from 20 percent to 10 percent in three stages from April, 1970 through January 1, 1972.

Japan continues to extend aid to less developed countries in the hopes of building up markets for its manufactures. A new food act is under consideration by the present Diet to provide legal justification for long-term aid sales of rice to Pakistan, Indonesia, and other countries.

The negotiation of the final year of operation of the Japan-USSR trade arrangement has eliminated USSR exports of sunflower seeds and certain animal feeds in 1970. This action might provide a favorable climate for increased U.S. exports of safflower seed to Japan during 1970. (Mary E. Long)

REPUBLIC OF KOREA

Plentiful and well distributed rainfall in 1969 boosted Korea's total agricultural output by 15 percent after serious setbacks from droughts in 1967 and 1968. Production of paddy rice climbed to 5.6 million tons, a 28-percent increase. Harvests of other grains changed little from 1968. Production of vegetables increased sharply to 2.5 million tons.

Total foodgrain imports are estimated at 2.1 million tons in 1969, up two-thirds from a year earlier. The 1970 outlook is for the same volume, which includes 500,000 tons of rice, 1.2 million tons of wheat, and 210,000 tons of corn for stockfeed. Imports of raw cotton, nearly all from the United States, increased to an estimated 95,000 tons in 1969 from 86,000 tons in 1968.

GNP in 1969 is estimated at \$6.6 billion, at current market prices, up 16 percent from 1968. Per capita GNP rose to \$209. Gold and foreign exchange reserves totaled \$552 million at the end of 1969, more than one-third above the previous year. Strengthening of Korea's foreign exchange position in 1969 was due to larger inflows of foreign capital investments, higher exports, and increased expenditures by Americans stationed in Korea.

Seoul consumer prices have risen by 51 percent since the end of 1965. They increased 10 percent in 1969. To help curb inflation, the government devalued its currency by 4.5 percent on November 4, 1969. The official rate of exchange is 304 won for one U.S. dollar. In the long run, the devaluation should help limit imports and serve to stimulate exports and check domestic prices.

Industry continued to make steady gains in 1969, with work moving ahead for new plants to produce steel, fertilizer, machinery, coal, cement, hydroelectric power, clothing, and other textile products. The cotton textile sector is the keystone of Korea's textile industry. There are now some 25 cotton spinning mills operating about 940,000 spindles. The goal in 1972 is 1.4 million spindles. Clothing exports, representing 26 percent of all textile exports, are estimated at \$153 million in 1969. The Republic imported \$8.1 million worth of greasy wool in the first 10 months in 1969, compared with \$7.2 million in all of 1968. Australia was the largest supplier.

Fertilizer consumption in 1969 approximated 740,000 tons. This contrasts with 640,000 tons in 1968 and 486,000 tons in 1967. Chemical fertilizer production increased moderately to 407,000 tons. Imports of manufactured fertilizer declined from 919,000 tons in 1966 to 638,000 tons in 1968. Imports in the first 10 months of 1969 totaled only 278,000 tons. Fertilizer exports are estimated at 140,000 tons in 1969. The Republic imported 500,000 tons of lime from the United States in 1969.

Agricultural production--especially of rice--was favored by good summer rains in 1969 and total output surpassed the previous drought years by 15 percent. Production of vegetables continued the strong uptrend of the 1960's and this contributed to the overall increase in agricultural output. Despite late floods, rice blast, and cold weather, the 1969 paddy rice crop totaled 5.6 million tons--28 percent above the 1968 crop and well above the record crops in 1964 and 1966. Both planted area and yields were at high levels.

High price supports before the planting season spurred farmers to plant more rice. But the market price went even higher and the government was able to purchase only 210,000 tons, or less than 40 percent of the target. The government is planning to increase military, government, and price stabilization stocks by importing an estimated 500,000 tons of rice in 1970. After rice, barley is the most important food crop. As incomes increase, there is a tendency for barley consumption to decline as consumers switch to rice. The 1969 barley harvest was nearly 2.1 million tons, about the average level of the last 5 years. In 1970 some barley land likely will be switched to vegetables and other crops in greater demand. The wheat crop was up 6 percent in 1969. Combined production of corn, millets, and grain sorghum crops declined by 15 percent. Production of fruits, tobacco, and sweetpotatoes increased moderately, but output of soybeans, potatoes, and pulses declined or showed no increase in 1969. The harvest of vegetables increased sharply in 1969 to 2.5 million tons.

Although meat production has been expanding rapidly in recent years, the level of output is relatively very low. Consisting mainly of pork, beef, and poultry, total production is estimated at no more than 165,000 tons. Per capita production at no more than 5.3 kilograms per year contrasts with 11 kilograms in Japan and 28 in Taiwan.

The government is promoting livestock and poultry development. A Cooley loan of \$500,000 in January 1969 will help finance a modern mill with a feed processing capacity of 40,000 tons per year, a processing plant capable of handling 600 broilers per hour, a hatchery with a capacity of 200,000 eggs per cycle, and poultry rearing farms.

Korea's imports, estimated at \$1.8 billion in 1969, exceeded exports by \$1.2 billion. The trade deficit was covered partly by U.S. aid, Japanese reparations, investments, and other foreign aid. Total foodgrain imports in 1969 are estimated at \$200 million or 11 percent of total imports. Rice imports by value accounted for 65 percent of all foodgrain imports in 1969.

Foodgrain imports rose sharply in 1969 to an estimated 2.1 million tons, reflecting the shortfall in rice production in recent earlier years. Total rice imports increased from 247,000 tons in 1968 to about 724,000 tons in 1969. The United States supplied 445,000 tons, and the remainder was purchased from Japan. Rice imports of 500,000 tons are anticipated in 1970. Wheat imports increased from 813,000 tons in 1968 to 1.2 million tons in 1969 and will likely match this level in 1970. The United States supplied nearly all of Korea's wheat requirements in 1969, much under P.L. 480. Imports of corn for animal and poultry feed probably totaled 130,000 tons in 1969 and may exceed 200,000 tons in 1970.

Imports of raw cotton in 1969 increased sharply to an estimated 95,000 tons. Nearly all come from the United States. Raw sugar imports during the first 10 months in 1969 totaled 157,000 tons--the same amount as in all of 1968. Taiwan is the largest supplier. The United States and Japan are the major suppliers of agricultural commodities to Korea.

U.S. agricultural exports to Korea increased from a record value of \$190 million in 1968 to \$235 million in 1969, due mainly to larger shipments of rice. Cotton, wheat, corn, and wheat flour also made gains, but soybeans declined. Korea ranked third (after Japan and India) among Asian markets for U.S. agricultural products in 1969. Exports of U.S. raw cotton to Korea increased to 425,000 bales in 1969. A greater demand for man-made fibers and further shifts by cotton millers to short-staple cotton may tend to limit U.S. exports of raw cotton in 1970.

Korea's total exports in 1969 are estimated at \$600 million or 32 percent above the record \$455-million level of 1968. Agricultural exports account for a small portion of total exports. Raw silk, hogs, beans, leaf tobacco, canned vegetables, and fruits are the principal products. Other major exports include clothing, plywood, wigs, marine products, electronic manufactures, and textiles. The United States, Japan, and Hong Kong are the major buyers of all Korea's exports. (Charles E. Goode)

MALAYSIA

In its determined drive to reduce imports and become self-sufficient in rice production, Malaysia is expanding the areas double cropped to rice. Output of paddy climbed 15 percent in 1968 to hit a record 1.1 million tons, then soared 26 percent in 1969 to reach a new peak of 1.3 million tons. Much of the output gain was helped along by a 75,000-acre expansion boosting the entire 2-crop area to 225,000 acres, which produced 260,000 tons of paddy in 1969. The double cropping area is either land reclaimed from the jungle or--more often--existing one-crop fields converted to two by providing an ample supply of water for all seasons.

A huge project is nearing its operational start-up. The first water impounded in the new \$75-million Muda River dam was ready for release in late January, but the fields were not prepared because of late rains. When the entire complex is functioning

in 1971, there will likely be a net increase of 415,000 tons of paddy rice. This is 270,000 tons milled basis or about equal to average annual imports in 1967 and 1968.

The nation's economic output continues strong stimulated by good demand for Malaysia's predominantly agricultural exports even though the rate of new capital investment has slowed. Production of rubber, which occupies 60 percent of the cultivated area and earns the major share of the country's foreign exchange, continued its steady gains, moving up from 1,061,000 tons in 1968 to 1,118,000 in 1969.

To escape the perils of dependence on a single export crop, government planners have developed an oil palm industry. Production of the oil soared from 92,000 tons in 1960 to 313,000 tons in 1969. Malaysia is now the world's largest exporter of both rubber and palm oil, and second only to Hawaii in shipment of canned pineapple. Its palm oil industry is now considering the possible expansion of production to as much as 2 million tons of oil per year by 1980.

A pilot project to rehabilitate about 11 percent of the total area in coconuts is on target, but no overall improvement in production can be expected without a massive program to replace many thousand overage and low-producing trees. The production of copra in Malaysia was 154,000 tons in 1968 and 137,000 tons in 1969. The per acre output of copra from revitalized smallholdings was estimated at 1,000 pounds a year while holdings not included in the pilot project were estimated to yield 600 pounds.

To expand crop diversification the government recently formed a central agency to coordinate the tasks of scattered research facilities and tackled some of the problems on which little progress has yet been made. Corn and sorghum, sugar and bananas are believed to hold the most promise.

Research on selection of high yielding varieties adapted to local conditions is being accelerated. Under experimental planting conditions, output per hectare has ranged from 2,580 to 3,480 kilograms. Farm production of corn in 1969 was 14,000 tons, up 2,000 tons from 1968. Imports of corn, largely from Thailand, were 186,000 tons in 1968 and 174,000 in 1969.

Bakery products made from wheat flour processed in domestic mills are fast becoming established as a major food staple in urban areas. Severe customs restrictions have been applied to imports of flour to assure that the three local mills with local employees are kept busy and not subjected to intense competition. No wheat is grown in Malaysia. Wheat imports for the mills were 360,000 tons in 1968 and 325,000 in 1969. These mills can easily satisfy domestic demand for slightly over 260,000 tons of flour. All but 10 percent of the imported wheat in 1968 came from Australia while the United States supplied a scant 3 percent. Proximity to the Malaysian market is Australia's principal advantage. (Goodloe Barry)

NEW ZEALAND

New Zealand's agriculture in 1969/70 may show no increase in volume output over 1968/69. Except for fruits and tobacco, crop yields are down sharply in 1970 because of low rainfall and drought conditions in major farm areas. Meat production may increase; the actual level of slaughterings will depend on government efforts to secure imported feedgrains to maintain the livestock through the winter months and until the drought subsides. Payments will be made to farmers to defray freight costs of moving grain and hay to farms as well as moving cattle from drought to feed areas. Special import licenses will be granted to facilitate imports of over 300,000 tons of feed grains for livestock during the 1970 winter. The United States continues as New Zealand's largest market for beef and our takings of its lamb have increased.

Net farm income, estimated at \$386 million in 1969/70, was about 6 percent above 1968/69. This increase was supported by the steady growth in foreign demand the past 2 years for New Zealand's farm products, especially meat, wool, and horticultural crops. Volume shipments of butter have also been maintained, even though export prices for dairy products have been depressed. GNP increased by 8 percent in 1969/70 to \$5.5 billion, of which agriculture accounted for 7 percent.

The government continues to stimulate expansion of meat animals and horticultural crops through tax incentives and subsidies to farmers for pesticide and fertilizer expenditures. More liberal credit and loan policies have been adopted to encourage land development and farm diversification in both crops and livestock.

The 1969/70 crop harvests in the process of completion are smaller than last year. The growing season was one of the driest on record. Shortages of rainfall affected all major production areas except the southern parts of South Island. Greatest decreases in crop production are expected in wheat, barley, potatoes, pulses, onions, and grass seeds. The supply of rye grass seed is so short that exports in 1969/70 and 1970/71 will drop sharply, particularly as domestic demand for grass seeds has increased. Apple and pear harvests are expected to be the highest in years. The tobacco harvest is expected to benefit from the dry weather conditions.

Drought conditions reduced the area planted to wheat by 12 percent to 274,000 acres. Production is now estimated at 327,000 tons, down from an early estimate of 446,000 tons. The current production is not adequate to meet domestic food and feed requirements.

Livestock numbers in 1970 reflect small increases over 1969 levels, but the full effects of the current drought are not known. Cattle numbers are only slightly above the 8.6 million of last year. Lambing conditions were good in 1969, but sheep numbers declined by 1 percent to 60 million head. The drop was due mainly to a 1968 decline in breeding ewes.

Beef and veal production in 1969 increased 6 percent to the level of 406,000 tons chiefly because of good market potential and high export prices. Weights of cattle were generally maintained despite the drought. Wool production in 1969/70 will increase only slightly to about 336,000 tons. Mutton production might advance 3 percent to 203,000 tons. Lighter carcass weights of sheep are reported for 1969/70, compared with last year.

Production of butter fat in 1969/70 is estimated at 283,000 tons or about 6 percent above 1968/69. Production continues at record levels despite a large buildup of butter stocks the past 2 years. Cheese production declined in 1968/69 as some of the milk usually processed into cheese was diverted to casein. Casein production increased from 47,000 to 69,000 tons. Cheese production in 1969/70 will be up to 102,000 tons, but still below the 106,000-ton average for the mid-1960's. Fluid milk production in 1970 is expected to decline.

New Zealand's agricultural policy continues to be governed by long-term targets for increased production. It emphasizes promotion of pastures for livestock and derived products such as meat, milk and wool. Farm output is expected to grow at about 3 percent annually through 1972/73.

The government is encouraging farmers to diversify production--from dairying--with emphasis on meat and crop production. It does this by extending special tax concessions on land purchases and development expenditures and by making liberal loan arrangements to finance mixed livestock farm units.

New grass varieties are being developed and new breeds of livestock introduced to promote more efficient beef production. Some of the new grasses are highly nutritious and they provide good feed over a prolonged grazing season.

From the 1969/70 budget the government subsidized the cost of pesticides. The subsidy amounts to 50 percent of the factory price, with controlled prices to farmers. This action was taken to compensate for the cost of pesticides to replace DDT. The fertilizer transport subsidy was revised to a flat rate of 6 cents per ton-mile, but not to exceed a maximum of \$3.36 per ton.

Export earnings for 1968/69 totaled \$1.1 billion--the first year to exceed a billion dollars. For 1969/70 the total value of all exports is estimated at \$1.2 billion, or 9 percent above last year. Agricultural commodities now comprise about 82 percent of the total value of all exports against 94 percent 10 years ago.

In 1969/70, meat exports--New Zealand's largest foreign exchange earner--will probably strain the country's production capability. Increases in exports are forecast to the United States, Japan, and Canada. Beef supplies will probably be adequate to the demand, but mutton availabilities for export may be down in 1969/70. In the first 10 months of calendar 1969 New Zealand's exports of beef to Canada increased twelvefold over the same period of 1968. Canada is now New Zealand's second market for beef.

Total meat exports to the United States in 1969 were estimated at about the same level as 1968. Marketing prospects in the United States for beef and lamb continue good during 1970 with both prices and demand at high levels.

New Zealand's exports of butter to the United Kingdom have been limited to a base quota of 179,000 tons. Prices of New Zealand butter have remained steady since 1967 at about 32 cents per pound on the London market. New Zealand hopes to hold its U.K. cheese allocation of 76,000 tons. It will have an increased market for cheese in the U.S. market by about 3,400 tons.

Efforts to diversify markets for dairy and meat products in 1969 revealed some new credit sales by the New Zealand Dairy Board. Chief among these was a credit issued to Peru for the purchase of nonfat dry milk and anhydrous fat. Another was a 3-year arrangement with India for sales of nonfat dry milk on 50 percent commercial and 50 percent aid terms. In addition, New Zealand hopes to increase sales of cheese to Japan, Taiwan, Korea, and possibly Indonesia in 1970. Sale of 7,000 tons of meat was made to the USSR.

Export receipts for wool in 1969/70 were \$246 million or 3 percent below last year. This is due mainly to the general decline in wool prices during recent months.

Fruit exports to the United States in 1968/69 were valued at about \$300,000. This consisted mainly of fresh apples and pears which arrived on the U.S. market in the winter months. There is a growing U.S. market for raspberries and strawberries air shipped from New Zealand.

On the New Zealand import side prospects for U.S. exporters are not too good. Tobacco is the principal import from the United States, and pressure is mounting for greater use of New Zealand's own leaf, which is in fairly large supply. Consumption of tobacco products declined in the past year, but it is not clear whether this a general pattern or related to high prices. Of the 3,400 tons of tobacco leaf imported in 1968/69, the United States supplied 52 percent while South Africa and South Korea supplied 29 and 16 percent respectively. This is in contrast to the late 1950's when

the United States supplied 90 percent of the market. Rice, dried fruits, and small seeds will be in good demand in 1970 and a relaxation of import restrictions on vegetable seeds may stimulate some imports. (Mary E. Long)

PAKISTAN

Adverse weather slowed the momentum of the Green Revolution in 1969. The wheat harvest in the spring of 1969 rose 3.6 percent to about 6.7 million tons--but this was 1 million tons less than expected. Rice production increased about 2.5 percent in 1969 because of an increase in the area planted. Large crops of cotton and jute will benefit Pakistan's exports in 1970. Exports of raw cotton in 1969 were only 84,000 tons, or half the level recorded in 1968. Pakistan's imports of agricultural commodities from the United States are expected to exceed \$100 million in 1970 because of larger arrivals of wheat and soybean oil under P.L. 480. Imports of food items from Europe and Oceania will also rise. Wheat imports dropped from 1.5 million tons in 1968 to 326,000 tons in 1969, but a revival of wheat imports near the 1968 level is scheduled this year.

Pakistan's military government calmed the political crisis that developed in March 1969. Democratic elections are planned. Fulfillment of promised deliveries of foodgrains, vegetable oils, and manufactured products to East Pakistan helped to improve conditions there. During 1969/70 the United States is scheduled to send about 1 million tons of wheat and over 50,000 tons of vegetable oils to East Pakistan. Total deliveries of food grains to East Pakistan during 1969/70 are now scheduled at 1.7 million tons. Prospective shipments of grain from West Pakistan include 400,000 tons of milled rice and 100,000 tons of wheat. Deliveries of 100,000 tons of Japanese rice to East Pakistan in early 1970 may be followed by larger supplies. In recent years the food situation has improved in West Pakistan but remained deficient in East Pakistan. The per capita use of rice and wheat combined in East Pakistan was about two-thirds more than in West Pakistan, during the early 1960's, and it is currently about one-fifth higher (table 5). West Pakistan's calorie intake continues to exceed East Pakistan's because of greater use of foods other than rice and wheat.

Table 5.--Pakistan: Production, net trade, and availability of wheat and rice combined, July-June 1960/61 through 1969/70

Year beginning July	East Pakistan				West Pakistan			
	Pro- duction	: Net trade	: Avail- ability	: Avail- able per capita	Pro- duction	: Net trade	: Avail- ability	: Avail- able per capita
	- - - - Million tons	- - - -	- - - -	Kilos	- - - - Million tons	- - - -	- - - -	Kilos
1960/61	9.70	.69	10.39	199	4.83	.66	5.49	115
1961/62	9.66	.39	10.05	186	5.21	.46	5.67	117
1962/63	9.92	1.45	11.37	203	5.27	.30	5.57	112
1963/64	10.65	1.07	11.72	202	5.45	.57	6.02	119
1964/65	10.53	.34	10.87	181	5.60	1.38	6.98	136
1965/66	10.59	.88	11.47	185	5.25	.27	5.52	105
1966/67	9.64	.98	10.62	165	5.69	.66	6.35	119
1967/68	11.23	.91	12.14	183	7.92	1.17	9.09	167
1968/69	11.30	1.12	12.42	183	8.62	-.48	8.14	146
1969/70	11.60	1.70	13.30	190	9.40	-.50	8.90	156

Note: Net trade for East and West Pakistan reflects shipments between the two areas, mostly shipments of rice from West Pakistan to East Pakistan. Minus sign indicates net exports by West Pakistan.

Rice and wheat combined account for about 90 percent of the calories received in East Pakistan, compared with 60 percent of the total in West Pakistan. Wheat has become important in the diet of urban areas of East Pakistan in the last decade, and it now accounts for almost 10 percent of the caloric intake there. The diet in West Pakistan is more diversified, with wheat accounting for about half of the calories received. Per capita use of coarse grains, milk, vegetable oils and sugar is considerably higher in West Pakistan. Grains from foreign sources and West Pakistan are needed in East Pakistan because production is growing so slowly.

Pakistan's GNP increased by about 6 percent in calendar 1969, reaching \$14 billion. Industrial output increased about 7.5 percent, although strikes in Lahore caused a slight dip in the output of textiles during November. The output of jute products in 1969 remained about the same, although supplies of raw jute used were down from February through April. Sales of manufactured consumer goods were up in cities and prosperous farm areas.

Total production of paddy rice rose from 20.1 million tons in 1968 to about 20.6 million tons in 1969. West Pakistan harvested about 3.5 million tons of paddy in 1969, up 75 percent in only 4 years. A 6-percent rise in rice production is anticipated in 1970 because of further expansion in plantings of new varieties and fertilizer use. Plantings of IR-8 rice spread to newly irrigated areas in the Sind. The area planted in all IRRI varieties in West Pakistan accounted for about one-fourth of the total rice areas.

Rice production in East Pakistan remained about the same in 1969. Farmers there planted about 700,000 hectares more rice but this was largely offset by flood damage to part of the crop.

Double cropping of rice gained impetus in 1969 through expanded plantings of varieties with a shorter growing season and improved irrigation facilities. About 160,000 hectares were planted to IRRI varieties in East Pakistan in 1969. In late 1969 farmers in East Pakistan received about 450 tons of IR-20 seed from the Philippines. This new variety and IR-22 have greater resistance to diseases which afflict IR-8 during the summer monsoon. They also have favorable cooking and milling characteristics.

The government has used guaranteed procurement prices, subsidized inputs, and farm extension programs to increase rice production. Rice prices in East Pakistan subsided from high levels during the critical months in early 1969. Prices for basmati rice remained at very high levels in West Pakistan, and those for other types of rice changed little. The 1969 procurement price for basmati rice was \$196 per ton in West Pakistan, up \$38 from 1967. The minimum support price for paddy in East Pakistan increased from \$73 per ton in 1967 to \$101 in 1969.

Wheat production in West Pakistan was below expectation in the spring of 1969. Dry weather caused a drastic yield reduction on non-irrigated fields. The distribution of some Mexi-Pak seed which had not been tested and certified resulted in lower yields in some areas than during 1967/68. Good yields from about 2 million hectares of high yielding varieties of wheat planted on irrigated land offset the smaller harvest from other areas. Total wheat production in West Pakistan nudged up from 6.4 million tons in 1968 to 6.6 million tons in 1969 despite adverse weather. High yielding varieties were planted on about 2.5 million hectares of 4.2 million hectares of irrigated wheat land during the 1969/70 season. Wheat production in the spring of 1970 in West Pakistan is expected to exceed 7 million tons despite adverse weather during the first half of the growing season. The minimum procurement price for wheat was adjusted upward again in 1969 (\$1.87 to \$2.12 per bushel). Wheat production in East Pakistan is still relatively small--about 100,000 tons or one-tenth of the area's needs. Recent programs to diversify agriculture in West Pakistan have caused remarkable output gains

in corn, peanuts, root crops, fruits, and vegetables. More attention will be focused upon livestock enterprises in the Fourth 5-Year Plan (1970/71 - 1974/75).

Good rains in late January 1970 boosted West Pakistan's crops of barley, pulses, potatoes, and winter vegetables in addition to the wheat crop. The upward trend in production of many winter crops in West Pakistan has been assisted by technological improvements and the use of water stored by Mangla Dam. The production of onions has also doubled in the last decade and a crop of over 220,000 tons is expected in the spring of 1970. The production of fruit in commercial orchards increased markedly in 1969. Since 1963 the production of bananas, dates, mangoes, and peaches has increased markedly in West Pakistan.

To ease the growing shortage of vegetable oils, farmers are encouraged to grow more oilseeds. Production of cottonseed rose 16 percent, but rapeseed was off 11 percent. Peanut production increased from 33,000 tons in 1964 to about 175,000 tons in 1969. Commercial production of sunflower seed has been encouraged through distribution of free seeds by the government. Experiments for growing soybeans were successful only in some areas near Rawalpindi. Imports of soybean oil into Pakistan may reach 200,000 tons by 1975 because of difficulty in producing enough oilseeds.

Jute production in East Pakistan exceeded 1.2 million tons in 1969 as it did previously in 1961 and 1967. Floods damaged the jute crop in 1968 more than in 1969. Cotton production reached a record 583,000 tons in 1969. Yields of cotton have increased through the use of more fertilizer, irrigation water, and improved seeds.

Tobacco production in West Pakistan declined slightly in 1968/69 because of poor rainfall in the winter. Adverse weather again hampered production in 1969/70.

Agricultural production in East Pakistan is expected to show promise in 1970 because of new seed introductions for many crops in addition to rice and wheat. Since 1964 the production of bananas, potatoes, peanuts, pineapples, onions, and citrus fruits has increased rapidly.

Many small farmers are growing more cash crops, partly by double cropping land planted in rice during the monsoon. They are expanding plantings of tobacco, cotton, chillies, and sugarcane. The production of rape and mustard seed, and linseed has not increased significantly in the last 5 years.

Pakistan's total exports declined about 9 percent in 1969 from the record \$720 million attained in 1968. A decline in the quantity of jute and jute manufactures exported in 1969 was traceable to a drop in production of jute in 1968. The value of these exports was also down despite rise in export prices. High prices for basmati rice in West Pakistan limited rice exports to the Middle East. Exports of some less important items continued upward, including leaf tobacco, household appliances, and oilcake.

Raw cotton exports fell to about half the high level of \$100 million recorded in 1968. High prices and a fire at Karchi's docks in early 1969 contributed to the decline. Exports of cotton in 1970 are expected to exceed 155,000 tons. Larger sales to Hong Kong, Japan, and Western Europe are planned. Pakistan's cotton is noted for its strength. Export prices quoted for Pakistan's medium staple cotton are usually about a cent per pound higher than those for comparable grades of American cotton.

Sales of jute to Western Europe continued to decline. Total exports of jute declined considerably in 1969 despite large shipments to the USSR and Eastern Europe. Exports of jute products declined slightly; exports of carpet backing to the USA increased moderately. Exports of basmati rice are expected to exceed 200,000 tons in 1970 because of larger exports to Kuwait and some other markets in the Middle East.

Pakistan's agricultural imports declined from \$204 million in 1968 to \$99 million in 1969. By value, soybean oil from the United States was the leading agricultural import in 1969. Imports of wheat for East Pakistan during 1969 were less than 250,000 tons compared with 1.5 million tons in 1968. Imports of fruits into West Pakistan again exceeded \$10 million in 1969, including imports of fresh grapes and raisins from Afghanistan and dried dates from Iraq and Iran.

U.S. agricultural exports to Pakistan in 1969 were only \$40 million compared with \$107 million in 1968. However, shipments are scheduled to rise again in 1970, and exports under P.L. 480 will include over 1 million tons of wheat and 140,000 tons of vegetable oils.

American exports of fertilizer, seeds, pesticides, and other farm supplies to Pakistan are increasing. Total consumption of fertilizer in Pakistan increased from 125,000 nutrient tons in 1965/66 to 369,000 tons in 1968/69. Imports of fertilizer from the United States, USSR, and Western Europe increased, reflecting Pakistan's lagging domestic output.

Trade between West and East Pakistan reached a record in the 12 months ended June 1969. West Pakistan sent about 350,000 tons of rice and 104,000 tons of wheat to East Pakistan in 1968/69. The value of all commodities received by East Pakistan from the west wing in 1968/69 reached \$291 million. Some of the leading items were cotton textiles, raw cotton, tobacco, rape and mustard seeds, rice, machinery, and cement. West Pakistan's imports from East Pakistan in 1968/69 were valued at \$183 million. The leading items received by West Pakistan were tea, jute products, paper, matches and leather. (John B. Parker, Jr.)

PHILIPPINES

Excellent growing conditions in 1969 succeeded a severe 18-month drought, lifting Philippine agricultural production an estimated 7 percent over 1968. Rice, aided by both better weather and increased plantings of new high yielding varieties, led the advance with a gain of 16 percent to almost 5.2 million tons. Corn, the country's No. 2 staple, went up 14 percent to 1.6 million tons in 1969. Copra and centrifugal sugar, the nation's most lucrative export crops, were slower to recover and their output in 1969 was stagnant.

With continuing favorable weather, and more fertilizer and irrigation, all these crops should show good production gains in 1970. If the harvests live up to early promises, rice imports will continue unneeded and the sugar quota in the U.S. market will be filled. The future of copra is clouded by complications following adoption in February 1970 of a floating foreign exchange rate for the peso which is no longer pegged at 3.9 to 1 dollar. The exchange rate is now determined by market demand, which early this year ranged between 5 and 6 to the dollar.

Philippine finances were under severe strain in late 1969 and early 1970. In the first 9 months of 1969 the government accumulated an unprecedented budget deficit of \$167 million, topping the 1968 shortage by 157 percent. The jolt to the economy was compounded by a \$208-million deficit in the balance of trade in the first half of 1969. The imbalance and consequent loss of vital foreign exchange came from static export shipments and ever rising imports.

To combat the imbalance of foreign trade, the Central Bank leaned heavily on the new lower floating exchange rate to encourage exports of coconut products (except copra), pineapples, bananas, abaca, and rice if available. Imports in general were discouraged by the lower value of the peso. Restrictions announced in November posed a threat to Philippine imports of agricultural commodities. However, fears of deep

cuts in the three largest imports from the United States were eased in March 1970 when the Central Bank notified commercial banks in Manila that no import of wheat, raw cotton, or leaf tobacco will be permitted except under the United States' CCC export sales program. These three commodities together accounted for 62 percent of the value of all U.S. agricultural shipments to the Philippines in 1969.

The International Rice Institute announced the naming of two new strains, IR-20 and IR-22. Both are high yielding, more resistant to plant disease, and have better milling and cooking qualities than the IR-8 and IR-5; and both are expected to appeal more to Southeast Asian tastes. The IR-20 will be used where full inputs may not be provided; the IR-22 where more intensive use of water and fertilizer inputs will be provided.

Wheat imports slipped off sharply to 550,000 tons in 1968/69 after hitting a record 623,000 tons the previous year. The U.S. share of the market declined slightly to about 90 percent due to increased price competition, particularly from subsidized French flour and soft wheat. Canada and Australia both launched vigorous trade offensives in late 1969 and early 1970 to increase sales of their wheat to the Philippines. Both drives were based largely on extension of more favorable credit terms.

Exports of coconut products, top hard-money earners in the Philippines overseas trade, slipped lower in calendar 1969. Shipments of copra fell off to 548,000 tons, down almost 15 percent from 1968. Coconut oil exports decreased 20 percent to 211,000 tons and desiccated coconuts 30 percent to 50,000 tons. Though prices of coconut products turned up in the last quarter of 1969, the averages of the year were well below those of 1968. Production of copra in 1969 was slightly less than in 1968. Production suffered from typhoon damage in 1967 and an exceptionally severe drought with rainfall off 25 percent all through 1968 and into May 1969. Production could return to the pre-drought level toward the end of this year. However, one feature of the new floating foreign exchange rate for the peso threatens to halt almost all exports of copra because its price balance with coconut oil is disrupted. This exchange decree, issued near the end of February, required that 80 percent of the dollars earned from copra exports be surrendered to the Central Bank at the old exchange rate of 3.90 pesos per dollar, while all dollar earnings from coconut oil exports can be converted at an exchange rate which was about 6.10 pesos to the dollar in mid-March. This level gave coconut oil an advantage of 40 percent. Steps already have been taken to expand domestic production of oil to capacity. A comprehensive \$17-million scheme to modernize the traditional marketing system is progressing rapidly. Development plans include the construction of four additional oil mills and one desiccated coconut plant.

For the third successive year sugar shipments were made just in time to fill the basic Philippine 1969 quota of 1,176,000 short tons in the high-paying U.S. market. It was necessary to borrow approximately 150,000 tons from early harvest of the new crop scheduled for milling and shipment in 1970. More borrowing may be necessary to make good on the 1970 quota. Dry weather persisting all through 1968 and the first half of 1969 limited growth and set back the Philippine sugar expansion effort in 1969/70. Four of the 14 new mills recently authorized are nearing completion, and an early increase of 700,000 tons a year is expected. Where the surplus will be marketed after satisfaction of domestic and quota needs is not known. More difficult and time-consuming than constructing the mills are the negotiations to induce nearby land holders to grow cane and deliver it to the mills.

Another crop hard hit by the drought was tobacco. The total 1968/69 harvest was reported at about 77,800 tons, down 11 percent from the previous year. In a sense this loss could have been a hidden blessing by helping to reduce a large accumulated surplus of low quality, flue-cured tobacco. However, the low quality tobacco sustained less damage than the high quality. The 1969/70 harvest may be 80,000 tons.

The downtrend in the production of abaca during the previous 5 years continued in 1969 but slowed significantly. Output in 1969 reached only 59,000 tons. The 1968 exports of abaca were 455,000 bales (126.5 kilograms), 17 percent smaller than the previous year. However, domestic consumption increased, due mainly to the development of new uses and the opening of two pulp and paper mills. The generally reduced shipment to overseas markets is attributed in part to the substitution of new fibers for abaca in the making of cordage. The weakening demand in the U.S. market is reflected to some degree by declining prices--from \$343 per ton in 1964 to \$268 in 1966 and \$255 in 1968.

Farm weight of pineapple production increased rapidly to about 400,000 tons in 1968/69 from the previous year's 280,000 tons. Canned pineapples have become one of the 10 principal exports of the Philippines. Shipments overseas in 1968 were between 100,000 and 110,000 tons. They went up perhaps 30,000 tons higher in 1969. The United States is the principal market, taking about 30 percent. Most of the remainder goes to Western Europe with smaller quantities to Japan, Hong Kong, and Canada. (Goodloe Barry)

TAIWAN

Taiwan's total agricultural production in 1969 was unchanged from the previous year. A decline in crop production, due in part to severe typhoon damage, was offset by a gain in meat output. Rice production fell 3 percent to 3.2 million tons and exports during the year reached only 42,000 tons. Sugarcane production dropped to 7.0 million tons in 1969 or 15 percent, and exports of sugar were off even more sharply.

Exports of preserved foods reached the \$100-million mark in 1969, and banana shipments gained. Imports of wheat, corn, barley, and soybeans increased sharply in 1969, while cotton was little changed from 1968.

The GNP for 1969 at current prices is estimated at \$4.8 billion, up almost 9 percent over 1968. Per capita income gained 5 percent, reaching \$258 in 1969. Agricultural production accounted for 21 percent of GNP in 1969, and this share continues to decline while that of industry has risen to one-third.

Gold and foreign exchange holdings at the end of December 1969 totaled \$477 million, compared with \$381 million a year earlier. Taiwan's foreign exchange position in 1969 was supported by gains in exports, capital investments, and tourism. Tourists brought an estimated \$75 million to Taiwan in 1969. The government is supporting investment in construction of modern hotels and in development of national parks and recreational facilities. The investments are expected to boost tourism income by \$100 million by the end of 1972.

Taiwan's industrial production increased an estimated 25 percent in 1969. Industrial products accounted for 70 percent of total exports with textile exports representing 23 percent. Industrial development is placing more emphasis on electronics, petrochemicals, shipbuilding, machinery, metals, textiles, plywood, and food processing.

Construction of several irrigation dams continued into 1970. The largest is the Tsengmen Reservoir project, capable of irrigating over 85,000 hectares of rice land when completed in 1973. This irrigation potential is also capable of producing an estimated additional 140,000 tons of rice, and at the same time it will reduce crop losses from flooding. Other reservoirs under construction include the upper Tachien and Hou Lung projects.

Three typhoons near midyear caused considerable damage to food crops. The 1969 rice crop dropped an estimated 3.4 percent to 3.2 million tons. Sugarcane production

decreased to 7 million tons in 1969 or 15 percent, due mainly to a drop in planted acreage, which in turn reflected low sugar prices at planting time. Any typhoon damage to cane will be reflected in 1970 production of sugar as the milling season is in the early months of the year.

Growing conditions were ideal despite slight typhoon damage to fresh vegetables, and the 1969 production increased 20 percent to 1.5 million tons. The gain arose in part from an increase in area but even more from higher yields. The sweetpotato area expanded in 1969 and production rose 7 percent to 3.7 million tons. Typhoons reduced the banana and citrus fruit production to 584,000 tons and 168,000 tons respectively. Production of pineapples, tea, pulses, and cassava increased. Mushroom production decreased due to the excessively mild winter.

Winter crops are declining in Taiwan, due to low crop prices and higher labor costs. Of the winter crops, only vegetables, tobacco, and pulses have been able to maintain acreage in recent years, while others such as soybeans, rapeseed, tobacco, and wheat have declined.

Production of rice in 1970 is expected to increase, despite the current rice surplus. Further increases in production of fresh vegetables and citrus fruits can also be expected. Banana production in the first 4 months in 1970 suffered from the effect of the 1969 typhoons. The government is encouraging production of soybeans and corn in 1970 by restricting winter imports.

Livestock and poultry production benefited from increases in imported coarse grains, and output of meat products increased an estimated 6 percent in 1969. Pork production increased 5.8 percent to 342,000 tons. With expansion in hog slaughtering, pork exports amounted to 6,000 tons in 1969. Frozen pork exports have prospects of earning \$25 million a year. Pork exports go mainly to Japan and European countries. Poultry production increased 6 percent in 1969, and egg production also gained. The United Nations Development Program (UNDP) approved a 5-year, \$2.3 million project in January 1969 to establish a research institute in Taipei for improving hog production. The UNDP will contribute \$805,000 and the government will furnish the remainder.

Foreign trade continued to expand in 1969. Total value of exports is estimated at \$1.1 billion, up 29 percent. The United States, Japan, and West Germany are the major markets for Taiwan's agricultural exports. Export value of canned pineapples, mushrooms, and asparagus in 1969 was an estimated \$78 million, down 5.8 percent from the previous year. Banana exports the first 10 months in 1969 totaled 347,000 tons, slightly above the total for all of 1968. Sugar exports of 629,000 tons in 1968 were not equaled in 1969, due to a decrease in area, owing to the low sugar prices during the planting season. Exports of sugar the first 10 months in 1969 totaled 402,000 tons. Taiwan's rice exports in 1969, nearly all to South Vietnam, are estimated at 42,000 tons. Exports have been decreasing primarily because Japan, the largest foreign outlet, has had large crops and so could reduce its imports. After 8 years of negotiations and experiments, Japan agreed to import 500 tons of Taiwan's Ponkan tangerines in 1969. Taiwan exports annually 10,000 tons of fresh citrus fruits to other Asian countries. Other agricultural exports include tea, onions, citronella oil, preserved fruits, canned bamboo shoots, vegetables, and ginger roots.

Taiwan's agricultural exports in 1970 may show only modest gains because of typhoon damage and difficulties in expanding or regaining export markets for rice, bananas, canned mushrooms, asparagus, and pineapples. Exports of sugar, bananas, bamboo shoots, and possibly asparagus will show some effects from the 1969 typhoons. To stimulate lagging exports of canned foods, the government reduced the surcharge taxes on mushrooms and asparagus exports from 5 percent to 3 percent, effective January 1, 1970.

The government placed a ceiling on imports of corn, wheat, soybeans and raw cotton for the period April 1 through December 31, 1969. Port congestion, limited use of foreign exchange, and limited storage and transportation facilities made these ceilings necessary.

Grain imports, mostly wheat and corn, are estimated at 1 million tons in 1969 and are forecast at 20 percent more in 1970. Wheat imports increased substantially in 1969 to an estimated 575,000 tons, including some for feed. About 56,000 tons came from France. Wheat imports are forecast at 530,000 tons in 1970. Corn imports were increased to an estimated 400,000 tons in 1969 to meet demands of the growing poultry and live-stock industries. Thailand was the major supplier. A further increase is expected in 1970. Barley imports in 1969 increased 42 percent to 75,000 tons.

Imports of soybeans were record high at 610,000 tons in 1969, and likely will not maintain this level in 1970. The United States is a major supplier of wheat and soybeans to Taiwan. Rapeseed imports rose from zero in 1959 to 45,000 tons in 1968, then fell to 20,000 tons in 1969. Canada has supplied the bulk of rapeseed to Taiwan. Rapeseed imports have been halted to encourage domestic production.

Taiwan's raw cotton imports for 1969 are estimated at 87,000 tons, about the same as in 1968. U.S. exports in 1969 totaled 47,000 tons, down 42 percent from the same period in 1968. As the shipping strike curtailed U.S. exports, Brazil and Guatemala made up the difference. Imports of raw cotton may decline somewhat in 1970 because cotton stocks are large and because expansion of overseas textile trade is difficult.

U.S. exports of farm products to Taiwan in 1969 totaled \$107 million in 1969 or 8 percent below 1968. The chief items exported were soybeans, wheat, and raw cotton. Lesser items include tallow, corn, nonfat dry milk, tobacco, and vegetable oils. The decline in 1969 reflected much smaller shipments of raw cotton and wheat that were only partially offset by gains in soybeans and tobacco. (Charles E. Goode)

THAILAND

Thailand's good weather boosted agricultural production in 1969. Rice and corn crops are at record levels, and exports should increase moderately in 1970. Kenaf production more than doubled the 1968 low. Rubber output has increased markedly. But the 1969 cotton crop was less than half the 1968 harvest.

Gross Domestic Product (deflated) increased about 7 percent. Although 75 percent of the Thai people make their living from agriculture, agriculture's share in national income decreased from 31 percent in 1966 to 28 percent in 1969. Agricultural commodities continue to provide about three-fourths of Thailand's export earnings.

Thailand has a growing trade deficit. In 1965 imports totaled \$736 million, exceeding exports by \$114 million. By the first half of 1969 imports had risen to an annual rate of \$1.2 billion. This was nearly double the level of exports, and the deficit with Japan alone was greater than the entire deficit in 1965. Exports of important grains did not meet expected levels in 1969 and prices were down.

Despite the trade deficit, several factors have kept the balance of payments favorable in recent years--U.S. military spending, tourism, and foreign investment. Last year these factors failed to maintain a favorable balance. Tourist revenue and foreign investment expenditures continued to rise in 1969, but U.S. military spending decreased by a fourth.

The government of Thailand has initiated policies to combat the trade deficit. For example, export premiums have been lowered to stimulate rice sales. The Thais

are negotiating with Japan about their adverse balance of trade and are insisting on a more balanced trade plan. In addition, Thailand is looking for new markets in Eastern Europe, India, and Africa.

The 1969/70 rice crop is estimated at 13.4 million tons of paddy (8.9 million tons milled). Though localized flood damage and losses from pests and disease dimmed earlier prospects, both yields and planted area exceeded those of the previous year. Abundant and timely rainfall insured a bumper harvest, currently estimated to be second only to that of 1966/67.

Three new rice varieties, developed under the supervision of a private U.S. Foundation, were accepted by the rice department in 1969. They are high quality varieties, crosses between native and IR-8 strains, reported to be higher yielding than IR-8 and more resistant to native diseases. They are long grain varieties, two non-glutinous and one glutinous. The government plans for 16,000 hectares to be planted in new varieties next season.

Rice production should increase again next year if weather continues to be favorable and producer prices maintain their levels. Weather has been unusually good. Area devoted to rice cultivation has increased in the past 5 years from 6.5 million hectares to 7.5 million hectares and there is some potential for further expansion. Yields have also increased, from 1.64 tons per hectare 5 years ago to 1.77 tons per hectare in 1969/70. Increased use of fertilizer and the development of irrigation projects have contributed to this yield increase; and further gains are expected.

Rice exports remained stable at 1 million tons in 1969, well below the goal of 1.4 million tons (table 6). The value of rice exports declined about 20 percent because of falling prices. Traditional markets, the Philippines and Malaysia, increased their own domestic supplies and bought less Thai rice while Indonesia received rice under the U.S. P.L. 480 program. In the face of increasing production and declining exports, rice available for domestic use in Thailand has increased more rapidly than population. In recent years more rice has been available for nonfood uses. Additional rice is now used for feed in hog and poultry production and in the manufacture of alcohol.

Table 6.--Thailand: Supply of rice milled 1964-70

Year	Production ^{1/}	Exports	Available for domestic use
	----- 1,000 tons -----		
1964	7,768	1,896	5,872
1965	7,306	1,895	5,411
1966	7,113	1,508	5,605
1967	8,910	1,482	7,428
1968	7,391	1,068	6,323
1969 (preliminary)	8,191	1,026	7,165
1970 (estimated)	8,851	1,200	7,651

^{1/} Production of preceding year.

There is also a good corn crop for 1969/70. Production rose 13 percent to 1.7 million tons. Exports in 1969 were at 1.4 million tons, slightly less than in 1968. Domestic consumption of corn has increased substantially. Much of this increase has been absorbed by feed mills. The domestic price of corn has been rising and recently moved above the export price. Disagreements about prices between Thai exporters and Japanese importers, combined with heavy demand from other foreign purchasers and increasing demand on the domestic market, have led to non-fulfillments of Japan-Thai corn agreements. Although the share going to Japan will probably continue to decrease, total 1970 exports of corn from Thailand should rise above last year's level.

Rubber production increased 12 percent to 288,000 tons in 1969. Prices for rubber on the world market were high in the first half of 1969. Thailand's rubber exports for the first half of 1969 gained 7 percent in volume over the first half of 1968 while value rose 61 percent. Export prices began to fall again in the second half of 1969. Total exports increased from 252,000 tons in 1968 to an estimated 270,000 tons in 1969.

The government took steps last year to encourage production of rubber and rubber products. A government committee increased its contribution to rubber plantation owners 8 percent to \$24.33 per acre for replanting. The government also reduced ad valorem duty rates on rubber processing ingredients in order to further stimulate production of rubber products in Thailand. The domestic industry is composed of four companies, two U.S. plants, one Japanese plant, and a Taiwanese plant. Together they use less than 5 percent of the natural rubber produced in Thailand.

Kenaf production increased substantially from a low of 139,000 tons in 1968 to 300,000 in 1969. The increase was spurred by higher prices. Because of the price rise, value of kenaf exports nearly doubled in the first 6 months in 1969, compared to the same period in 1968, although volume of exports in the two periods were about equal. Domestic use of kenaf in making gunny bags declined in 1969. With the higher production of this season, stocks will increase or prices will fall unless Thailand can quickly come up with substantial new markets.

Production of cassava in 1969 was 2.2 million tons, off from 2.4 million tons in 1968. The reduction was largely a reaction to low prices for tapioca products. Exports remained approximately constant.

Thailand and six other Asian countries have formed an Asian coconut community. The community collectively produces 80 percent of world coconut output and is concerned with world trade problems, specifically the restrictive measures of the EEC.

Wheat, tobacco, and cotton are some of the chief commodities that Thailand imports. The United States supplies substantial amounts of tobacco and cotton, and a little of the wheat and wheat flour. The value of U.S. agricultural exports to Thailand in 1969 was \$32 million.

Thailand's wheat imports (grain equivalent) increased to 62,000 tons in 1969. The U.S. provides only about 15 percent of this market.

Thailand both imports and exports tobacco. Production was 41,000 tons in 1968/69 and is expected to rise to 43,000 tons in 1969/70. Imports are mainly of Virginia leaf, principally from the United States. The United States exported \$19 million worth of tobacco to Thailand in 1969, a volume of 11,000 tons.

Cotton also is both produced and imported by Thailand. Thailand's cotton crop fell sharply to 12,000 tons (55,000 bales) in 1969. There was a drastic reduction in planted area due to drought and insect infestation. For several years Thailand has imported 100,000 to 115,000 bales of cotton annually, about three-fourths from the United States. In 1968, 95 percent came from the United States. In 1969 U.S. exports

to Thailand fell sharply to 43,000 bales, less than a half the level of 1968. Brazil and Mexico largely filled the gap by underpricing U.S. suppliers. In the current year imports may rise to 175,000 bales to maintain mill consumption. Although there is a cotton development center in Thailand, no solution has yet been found to the problem of infestation of Thai cotton, and import requirements should remain fairly high. The U.S. suppliers are expected to be more competitive in the Thai market in 1970. Barter contracts have been set up, and more Commodity Credit Corporation and Export-Import bank financing at low interest rates is being used.

The current Thai development plan (1967-71) is encouraging primary processing. The government is interested in attracting industries that would stimulate production and processing of agricultural commodities, and those that would produce for export. The plan also calls for increases in rural development. The Asian Development Bank is assisting in an irrigation project and the establishment of a land bank. The government is also encouraging production of new rice varieties and increased use of fertilizer. (Nancy Hancock)

SOUTH VIETNAM

Agricultural production continues to be disrupted by the activities of the war. Despite this, 1969 rice production rose to 5.1 million tons, a gain of 17 percent over 1968. The increase was caused by better weather and expanded use of new rice varieties. Production of other agricultural commodities last year was either down or at the same level as the previous year. U.S. agricultural exports to South Vietnam fell to \$132 million in 1969, reflecting a sharp reduction in rice exports to 344,000 tons.

In industry, production of key products such as textiles and cement is up over last year. Construction is also up, but figures net of war destruction are not available. Inflation remains a major economic problem for the government. Increased rice prices were partly responsible for inflation last year. The price increased when the rice supply was reduced because the 1969/70 crop was late and import shipments were not timely.

The 1969 rice production of 5.1 million tons was the most since 1964. The planted area was 2.5 million hectares, an increase of 3 percent over the previous year.

The target for the planting of new varieties, IR-8 and IR-5, was 200,000 hectares last year, and at least 174,000 hectares were planted. Large areas were also planted outside the official program. Area planted in new varieties in 1968 was 44,000 hectares. The goal for 1970 is 500,000 hectares; this would increase the area under new varieties to 20 percent of total riceland in 1970. The national average yield for the new varieties is 5 tons per hectare, about double that of traditional varieties. Production in 1970 should be adequate for domestic needs.

Sugarcane production in Vietnam exceeded 1 million tons in 1965, but has declined drastically from year to year; in 1969 it was 350,000 tons of cane (35,000 tons of sugar). While sugar production has been decreasing, sugar refining has been increasing. About two-thirds of the raw sugar for refining is imported. Around 100,000 tons of refined sugar was processed in 1969.

A program to improve diets by increasing domestic production of animal protein foods has met with some success. Chicken and hog enterprises are expanding sharply in locations near urban areas. The output of poultry meat and pork is consumed almost entirely in the domestic market. Imports of feeds, mainly corn, have grown rapidly to support these enterprises. Imports were nearly 60,000 tons in 1969 and may exceed 200,000 tons in 1970. Thailand has supplied a small part of the corn, but most has come from the United States under P.L. 480.

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Rubber production has fallen consistently since the 1962 output of 78 million tons. Production in 1969 was only 25,000 tons. The causes of the decline are linked to the war; its damage to rubber trees, failure to replant and plant more competitive varieties, and generally high costs because of the war. Seventy-five percent of rubber plantations are French owned, and the French are not investing under these conditions.

South Vietnam's imports far exceed its exports. Rubber is the chief export. Valued at \$9.2 million in 1968, it accounted for nearly four-fifths of the total in that year. Small amounts of tea, duck feathers, and fish are usually exported. France is the principal market for Vietnamese exports. Predominant among imports, valued at \$466 million in 1968, were industrial products including machinery and consumer goods. Agricultural products comprised about a third of the total.

U.S. agricultural exports to Vietnam were valued at \$132 million for 1969. Most of these goods were exported under Title I of P.L. 480. U.S. exports of rice to Vietnam fell again in 1969 to 344,000 tons--off one-third from 1968--but still comprised more than two-fifths of all U.S. agricultural exports to that country. Other major items exported to Vietnam increased in 1969. Flour rose to 145,000 tons, corn to 73,000 tons, cotton to 73,000 bales, and all dairy products to a value of \$19 million.

Japan exports to Vietnam about two-thirds as much as does the United States, but few of these exports are agricultural. France, Thailand, Taiwan and Singapore are other important exporters to Vietnam.

Legislation passed in early 1969 provides that land recovered by the government shall remain in the hands of the occupying tenants, that rentals on such land may not be increased, and that payment of back rents may not be required. Land-to-the-Tiller legislation of March 1970 provides for free distribution of land to cultivators. Landlords may retain up to 15 hectares while tenant farmers are to receive grants varying from one hectare in Central Vietnam to 3 hectares in the Mekong Delta. Landowners are to be paid 20 percent in cash and 80 percent in 8-year bonds. (Nancy Hancock)